ACCIDENT AND EMERGENCY STAFFS' RESPONSES TOWARDS DELIBERATE SELF-HARM: THE INFLUENCE OF CAUSAL ATTRIBUTIONS ON EMOTIONAL RESPONSES, OPTIMISM AND HELPING BEHAVIOUR

A Thesis submitted to the University of Manchester for the degree of Doctor of Clinical Psychology in the Faculty of Medicine

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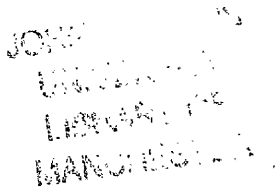
Nadine M. Mackay

Department of Clinical Psychology

School of Psychiatry and Behavioural Sciences



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ABSTRACT

The purpose of the study was to apply Weiner's (1980, 1986) attributional model of helping to Accident and Emergency (A&E) staffs' care of patients presenting with deliberate self-harm. A number of predictions were tested: (a) that precipitant and frequency of DSH would differentially affect staffs' causal attributions; (b) that attributions of controllability and stability would be associated with affect and optimism respectively; (c) that staffs' propensity to help would be mediated by affect and optimism.

The study was composed of two phases: a factorial experimental questionnaire and a free-response study. The participants for the experimental questionnaire were 89 A&E medical and nursing staff, who were presented with one of four hypothetical scenarios of DSH cases to rate. A two-factor between-subjects design was employed to examine the effects of *precipitant* to DSH (death of a close friend versus huge financial debts) and *frequency* of presentation at A&E with DSH (first versus sixth) on staffs' causal attributions. Participants were asked to rate attributions of controllability, stability, and internality for the cause of the DSH, their emotional response to the behaviour, their optimism for change of the behaviour, and their willingness to help change the behaviour. Participants in the free-response study were 20 A&E staff, who were asked to describe two patients, who had presented to A&E with DSH. Each participant was asked to describe one patient who had presented with DSH whom they felt sympathetic towards and another whom they felt unsympathetic towards, for a period of two minutes each. Following each description participants completed the measures of attribution, emotion, optimism and helping used in the experimental questionnaire phase.

The findings were consistent with Weiner's attributional model of helping. The greater the attributions of controllability, the greater the negative affect of staff towards the person, and the less the propensity to help. The higher the ratings of stability, the less staff optimism for the success of their input in A&E in facilitating change in behaviour, and the less the propensity to help. Staffs'

ratings of the free-responses for the sympathetic cases provided support for these associations. There was also some evidence to suggest that staffs' causal attributions of controllability were influenced by the precipitant to DSH, and stability judgements by the frequency of DSH presentation at A&E.

Formulating A&E staffs' responses to DSH using a cognitive-emotional model offers the possibility of working with staffs' beliefs, emotions and behaviour to improve the care and treatment of DSH patients in A&E departments.

DECLARATION

No portion of the work referred to in this thesis has been submitted in support of an application for another degree or qualification in the University of Manchester, or in any other University or institute of learning.

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SUMMARY OF ACADEMIC TRAINING AND EXPERIENCE

1988 – 1991	B.Sc. (Hons) Behavioural Sciences Huddersfield Polytechnic
1992 – 1995	Employed as Assistant Psychologist Stockton Hall Hospital, York
1995 – 1996	Employed as Assistant Psychologist Loddon NHS Trust, Basingstoke
1997 – 2000	D. Clin. Psy. University of Manchester

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CHAPTER 1

INTRODUCTION

1.0 INTRODUCTION

Deliberate self-harm (DSH) is a serious clinical problem and accounts for 150,000 presentations at Accident & Emergency (A&E) departments in the United Kingdom annually, placing considerable demand on services (Sheard, Evans, Cash, Hicks, King, Morgan, Nereli, Porter, Rees, Sandford, Slinn, Sunder & Ryle, in press). Improvement of interventions and outcome after DSH is an important focus for attempting to reduce suicide rates, as at least 1% of patients presenting to general hospitals in the UK after DSH commit suicide within a year and 3-5% do so within 5-10 years. Approximately half of all people who kill themselves have a history of DSH, an episode having occurred within the year before death in 20-25% of cases (Hawton, Arensman, Townsend, Bremner, Feldman, Goldney, Gunnell, Hazell, van Heeringen, House, Owens, Sakinofsky & Traskman-Bendz, 1998).

A&E staff responses are critical in addressing the needs of this vulnerable group for two reasons. A&E departments are often the first point of contact for many people who self-harm, and research has demonstrated that psychological problems are particularly prevalent in A&E, (Salkovskis, Storer, Atha & Warwick, 1990). A recent estimate from the Manchester and Salford Self-Harm (MASSH) project suggested that approximately 50% of people who attended A&E having DSH were not currently engaged with psychiatric services, (Cooper & Appleby, 1998). Therefore, A&E departments may be a way of accessing distressed people who would not otherwise come to the attention of services.

The Department of Health (1994) clearly targets an opportunistic role for the A&E nurse in the assessment and promotion of mental health. However, the nature of the A&E department is probably not the most conducive to enabling people who DSH to speak about their difficulties. Defining how best to care for this group remains problematic. However, the smallest interventions from A&E staff can be of enormous benefit to these vulnerable people, and the nurse's

approach may play a pivotal role in patients' uptake of psychiatric follow-up services (Dunleavey, 1992).

1.1 Overview of study

This study examines the cognitive, emotional and behavioural responses of Accident and Emergency (A&E) staff towards patients who present with deliberate self-harm (DSH). Specifically, it investigates the causal attributions of A&E staff for deliberate self-harm acts, and aims to determine whether staff attributions, affect, optimism and helping are dependent on contextual factors, such as the nature of the precipitant and the frequency of attendance at A&E with deliberate self-harm. Drawing on the Weiner's (1980, 1986) theory of helping behaviour, the study examines the nature of the relationship between staff causal attributions, emotional responses, optimism and helping behaviour. It also aims to examine the impact of staff factors such as sex and professional background, as well as A&E staffs' perceived need for further training in this area and their understanding of and empathy towards those who deliberately self-harm.

This introduction aims to provide a brief overview of the importance of targeting A&E staff responses to those presenting with deliberate self-harm. An outline of definitions of DSH, and epidemiological factors will be presented. It will then progress to describing current services provided for this group and specifically examine the presentation of DSH in A&E and the role of these departments in treatment and management. A summary of patient and staff factors that may predispose this client group to negative staff attitudes will be discussed. Next, a review of the literature on staff attitudes to people who deliberately harm themselves in both psychiatric and general medical settings will be presented. The introduction will then explore the research literature examining staff attributions of patients' behaviours in other clinical settings, and finally discuss the literature that suggests a link between staff attributions, emotional responses, staff optimism and helping behaviours.

1.2 Context: Why study A&E staffs' responses towards DSH?

The responses of A&E staff to DSH were targeted for the following reasons: the high incidence of DSH presenting to A&E; the preponderance of negative attitudes towards people who DSH; and the importance of addressing staff responses to DSH in view of its strong association with suicide.

1.2.1 Incidence of DSH

DSH has been a major health problem in the UK for almost three decades. It represents a significant and increasing demand on NHS services and staff, particularly on A&E services. DSH is one of the top five causes of acute medical admissions for both women and men (Hawton & Fagg, 1992). Such high incidence rates can cause stress on both nursing and medical staff and could influence the attitudes they hold in relation to attempted suicide (McLaughlin, 1994).

1.2.2 Staff Attitudes

DSH often generates anxiety amongst professionals. Those people who persistently harm themselves may lead to staff losing their confidence in their ability to help. This problem reflects a serious and widespread lack of understanding of deliberate self- harm, which results in great inconsistency and inadequacies in services (Arnold, 1995).

The stigma attached to self-injury follows women into casualty departments. While those individuals involved in accidents are treated with respect and concern, a woman who has injured herself may find herself stigmatised by staff. (Harrison, 1995).

For many people who harm themselves the first point of contact with professional health services is the A&E department. There has been a greater emphasis on care in the community for those with mental health problems in

recent years, which has meant that A&E departments are increasingly having to manage patients who have self-harmed and those with mental health problems, (Ambrose, 1996). It has been suggested that A&E departments are an access point for psychiatric services for individuals who would not otherwise seek psychiatric help, (Salkovskis *et. al.,* 1990). If departments are not meeting the needs of this particular group of attenders and they continue to re-attend, they are in danger of being labelled as "time-wasters", not receiving adequate care and ultimately using more resources (Ambrose, 1996).

The attitudes of the caring profession towards DSH patients are important, since negative or hostile attitudes are likely to diminish the enthusiasm that will be shown in providing help for such patients and influence the effectiveness of treatment, (Hawton, Marsack & Fagg, 1981; Suokas & Lonnqvist, 1989a). Contact with A&E departments provides an opportunity to help the patient interrupt an ongoing deliberate self-harm cycle, provided that the behaviour is taken seriously and the patient meets understanding from healthcare professionals.

The way in which patients who present with DSH are treated in A&E departments is likely to have a major influence on whether the person accepts follow-up and after care, (Platt & Salter, 1987). Judgmental attitudes and unhelpful and dismissive responses may, understandably, deter the individual from accepting further help, as well as reinforce negative feelings, (McGaughey, Long & Harrison, 1995; Hemmings, 1999).

There is also literature that suggests that negative staff responses may actually perpetuate the deliberate self-harm cycle, (Sheard *et. al.* in press). Clinical experience, substantiated by research findings, suggests that these patients are particularly sensitive to rejection (Wolk-Wasserman, 1985).

1.2.3 Relationship with Suicide

People who self-harm are one of the groups at highest risk of suicide, with 1% dying within one year of an attempt and 7% within 10 years (NHS Centre for Reviews and Dissemination, (NHS CRD) 1998; Lewis, Hawton & Jones, 1997). Approximately 25% of all suicides are seen in hospital after an act of DSH in the year before they die (Melville & House, 1999). Patients with a history of deliberate self- harm are 18 times more likely to kill themselves than members of the general population, (Ryan, Clement, & Perez-Avila, 1996).

The importance of suicide prevention has been highlighted in recent government health strategy documents (Secretary of State for Health 1992 & 1998). In view of these statistics, effective intervention after deliberate self-harm, if it were available, could therefore be an important means of achieving the targets for reduction of the suicide rate which are outlined in these documents.

The response of A&E staff is critical in addressing this problem, due to the fact that many patients choose to come to A&E to gain access to health care, and their reasons for choosing A&E may be no different to other service users. These may include the 24 hour availability of the A&E department or a way in which to bypass a GP or to directly access specialist (Ambrose, 1996). The close links between suicide and DSH, emphasise the importance of an adequate psychosocial assessment for all attenders, and the responsibility for an adequate risk assessment lies with all A&E medical staff, (Dennis, Beach, Evans, Winston & Friedman, 1997).

1.3 Definitions of DSH

Deliberate self-harm can be defined in its broadest terms as a self-induced act that results in personal harm. It involves intentional self- poisoning or self-injury, irrespective of the apparent purpose of the act (Hawton & Catalan,

1987). The term encompasses attempted suicide and less immediately hazardous forms of self-injury, such as self-laceration.

1.3.1 Problems with Definition

It is unclear from reading the literature to what exactly the term self-harm refers. There appears to be no generally agreed terminology. For example, it is unclear as to whether the terms *harm, injury, wounding, abuse* and *mutilation* are referring to the same phenomenon. There is also some doubt as to the function of self-harm and it is often confused with a suicide attempt. The behaviour is often conceptualised as "manipulative" rather than as a maladaptive coping strategy, which may be a consequence of the difficulty many professionals have in understanding deliberate self-harm.

1.4 Epidemiology of DSH

1.4.1 Incidence and Prevalence

During the past 50 years, there has been a rise in the incidence of self- harm, with a marked increase from the early 1960s. Rates levelled off in the late 1970s, there was a modest decline until the mid-1980s, but since then rates have risen continuously. It is difficult to obtain an accurate picture of the incidence and prevalence of deliberate self- harm; Oxford is the only UK centre with a continuous monitoring system. Current estimates suggest that there are in the region of 400 cases of DSH per 100,000 people per year, (Hawton, Fagg & Simkin, 1997), a rate that is higher than most other European countries. (Schmidtke, Bille- Brahe & De Leo, 1996).

Recent statistics from the Manchester and Salford Self-Harm (MASSH) Project, (Cooper & Appleby, 1998) indicate that at four hospitals in the Greater Manchester region there were approximately 2,700 cases of DSH presenting to A&E departments within a twelve month period.

Establishing the extent of deliberate self-harm is problematic for two reasons. Firstly, statistics for DSH are not readily available and are less reliable than suicide morbidity rates (Landau & Rahav, 1989). Secondly, estimates tend to be based on general hospital attenders, although a third of episodes may not lead to medical contact, and such statistics are likely to underestimate occurrence, (Kennedy & Kreitman, 1973).

1.4.2 Typologies

Burrows (1992) identifies several types of self- harm which include laceration, self-biting, picking wound or sutures, burning and insertion damage, for example, wire, nails, pins, pens and swallowing corrosive chemicals, batteries and razor blades. Self-poisoning is the most common form of DSH followed by cutting. Most research has focused on people who have taken drug overdoses. A study conducted in the Greater Manchester area suggests that 85% of deliberate self- harm presentations at A&E departments involve this form (Appleby & Cooper, 1998). It is also the most likely to lead to hospital admission.

1.4.3 Age and Sex

There has been a marked increase in the number of men who harm themselves. Although, there were once between two or three times as many women as men presenting with deliberate self- harm, this gap has narrowed so that self- harm is now only slightly more common among women than men (Hawton, Fagg & Simkin, 1997). The MASSH project found the ratio to be 1:1.23 males to females. The mean age of the self-harm population is in the early thirties for both sexes, the peak age for presentation being 15 to 24 years for women and 25-34 for men, (Charlton, Kelly & Dunnell 1992, 1993). The MASSH project identified the highest number of presentations in the age range of 20 to 30 years (Cooper & Appleby, 1998).

1.4.4 Precipitants

Hawton *et al.* (1997) examined problems preceding DSH, and identified some marked sex differences. Problems concerning a partner, employment/ education, alcohol, drugs and finances were more prevalent amongst males, and problems with family members other than a partner were more common in females.

The MASSH project (Cooper & Appleby, 1998) collected data on patients' self-report of precipitants to their DSH and found the mean number of precipitants to be 1.6, with a range of 0 to 8. Relationship problems, particularly with partners, are the most common precipitant for both sexes (44%). Bullying is more common in the younger age group, with 27% citing this as a problem related to the attempt. Work related problems generally occur more often in the under 45 age range compared with older age groups. As would be expected, physical health problems and bereavement are the main reasons for self-harm for the over 70 age group.

In most cases, people report that they have taken an overdose in response to social problems. Common problems include difficulties with housing, unemployment, debt, poor personal health, and conflict or loss in relationships (Platt & Kreitman, 1990).

1.5 Current Services

There is considerable debate surrounding the optimal management of DSH, and it is often marginalised as a clinical priority. Historically, patients with acute mental health problems who presented to A& E departments throughout the UK have been managed by junior doctors and nurses, who have had little training in psychiatry. Ryan, Clemment & Snelson (1997) argue that, as most hospitals first contact with mental health patients begins in A&E, it would be most useful to locate resources to deal with them in that department. In recent years, there has been the introduction of psychiatric liaison nurses to A&E departments, who can consult with A&E staff and psychiatric services to provide appropriate treatment to a patient.

Currently, there are huge variations in service provision for DSH. This varies between the two extremes of psychiatric liaison staff providing assessment and consultation, and assessment conducted by inexperienced junior doctors (Slinn, King & Evans, in press). Inadequately trained staff are likely to have greater difficulty with the complex task of assessing suicide risk in those with borderline personality disorder (Stone, 1993).

1.5.1 Management of DSH in A&E

When a person seeks help after an overdose or acute episode of self- harm, the immediate priority is to deal with the physical problem. However, if repetition is to be prevented, the nature of the underlying problem must be identified so that an appropriate and effective intervention can be offered. DHSS guidelines published in 1984 recommended that every patient presenting with DSH should have a specialist psychosocial assessment. However, there is evidence to suggest that these guidelines are not adhered to in many areas, (NHS CRD, 1998). Only about 50% of those presenting with DSH receive a specialist psychosocial assessment before they leave (Kapur, House & Creed, 1998). Less than half are offered any follow-up advice beyond the recommendation

that they might see their general practitioner. Reports from several UK cities indicate that direct discharge without specialist assessment is becoming increasingly common (Owens & Jones, 1988). There are marked variations in practice between services in different regions, and also between clinical teams within the same district (Thomas, Bevan, & Bhattacharyya, 1996; Gunnell, Brooks & Peters, 1996).

Dennis *et. al.*, (1997) examined the management of DSH in an A&E department during a twelve month period. The results indicated that 31% of patients were discharged directly home by A&E staff. Approximately 20% of these were referred for psychiatric out-patient follow- up. 23% were referred for specialist assessment in the department and 45% were admitted to medical/ surgical wards. At night A&E staff were more likely to discharge a patient home than they were to refer for specialist assessment. Dennis *et al.* (1997) concluded that with more than 50% of the sample not admitted, the responsibility for the initial risk assessment lies with A&E medical staff.

MASSH statistics indicated that 10% of those presenting with DSH were discharged and referred back to their General Practitioner. 25% were discharged with no referral, and this included self- discharges. 63% were treated as "high risk", and this denotes psychiatric referrals and/ or referrals to medical/ surgical services (Appleby & Cooper, 1998).

One reason for persistent inadequacies in the service may be the negative attitudes of staff. Such attitudes often reflect a lack of knowledge about DSH and suggest that there is a need for improved training (NHS CRD, 1998).

1.6 DSH Patients' Experiences of Staff

There has been little published research examining patients' experiences of A&E staff. Research has indicated that people who self-harm frequently report punitive and judgmental attitudes among staff when they present to A&E departments, (Dunleavey, 1992; Hemmings, 1999).

The Bristol Crisis Service for Women undertook a study in 1995, which examined women who self-harm view of services, (Arnold, 1995). The results indicated a high level of dissatisfaction with service provision. The most commonly reported issue for women in their contact with services was the attitudes of staff. Frequently, women reported being criticized, ignored, told off, dismissed as "attention- seeking", "a nuisance" or "wasting time". Many women felt that professionals with whom they came into contact had very little knowledge and understanding about deliberate self-harm, often resorting to very basic models of causation.

What emerged clearly from the study was that the most important factor in determining whether a woman's experience of services was helpful was the attitude and approach of the staff involved. Most of women's distress and dissatisfaction was caused by the negative or dismissive attitudes of staff, whether this was expressed in terms of condemnation, disinterest or failure to provide any real help.

1.7 Characteristics of DSH Patients Increasing Susceptibility to Negative Staff Attitudes

1.7.1 Nature of Illness

Patients presenting physical illnesses tend to elicit more positive attitudes than those exhibiting suicidal behaviour (Patel 1975). Patients who are admitted following an overdose appear to elicit particularly negative attitudes in nurses. There is a common perception that patients who DSH do not deserve to receive

treatment because their injuries are self-inflicted and they divert attention and resources away from more deserving patients (Melville & House, 1999). The majority of medical and nursing staff believed that, in general, patients who have taken overdoses do not benefit from admission to hospital (Patel, 1975).

1.7.2 Motivation for DSH

There is literature that suggests that staffs' perceptions of patients' motivation for DSH may influence their attitudes towards them. These studies have concluded that nurses were more sympathetic and helpful towards people who expressed "depressive" motives than towards those who expressed "manipulative" motives for attempting suicide. Depressive motives included communicating despair, to escape or die, whereas manipulative motives included to influence others and "make others sorry", (Ramon, Bancroft & Skrimshire, 1975; Hawton, Bancroft & Catalan, 1981).

1.7.3 Age

The age of the patient presenting with DSH is another factor that has been found to have an impact on staffs' responses towards DSH. Attitudes have been shown to be more favourable towards elderly patients, (Deluty, 1989; Alston & Robinson, 1992).

1.7.4 Psychiatric Diagnosis

The largest group that most A&E nurses encounter with overt mental health problems, are those people who deliberately harm themselves. Statistics from MASSH project indicated that 48% of individuals presenting with DSH had received psychiatric treatment in the past, and 37% were currently receiving treatment. The most common psychiatric diagnosis is some form of depressive disorder followed by alcohol/ drug abuse, (Cooper & Appleby, 1998).

1.7.5 "Borderline Personality Disorder"

The majority of people who self-harm do not have a major mental health problem (Urwin & Gibbons 1979), but many do qualify for a diagnosis of personality disorder and many are substance users (NHS CRD 1998). The prevalence of personality disorder in this group has been reported to be up to 65% (Casey 1989). Clinical experience of this group suggests that a large proportion have "borderline features" especially those with a previous history, even thought they may not qualify for a formal diagnosis of borderline personality disorder, (Sheard *et. al.*, in press). Other personality and cognitive characteristics of this group include impulsiveness, hostility, and poor problem solving (Evans, Liebenau & Platts, 1996; Norstrom, Schalling & Asberg, 1995; Schotte & Clum, 1987)

1.7.6 Responses to Professional Input

Many patients are ambivalent about addressing their self-harm. They may fluctuate between hostility to help and demanding care by presenting in a chaotic crisis, (Sheard *et. al.* in press). DSH often occurs in the context of interpersonal problems and can be understood as a dysfunctional form of communication, help-seeking behaviour and management of difficult emotions (Bancroft, Skrimshire, Casoon, Harvard-Watts, & Reynolds, 1977).

1.7.7 Psychological Characteristics

There are identifiable enduring psychological characteristics associated with people who self-harm which may make them particularly susceptible to negative attitudes from staff. These include hopelessness, hostility to others, antisocial behaviour and deficient problem solving abilities. These psychological characteristics may be associated with self- harm because they confer vulnerability to mental health problems or social problems, or they may increase risk of self-harm independently, (NHS CRD, 1998).

1.7.8 "Repeaters"

People who repeatedly self-harm may be particularly susceptible to negative attitudes as they are likely to be perceived as "manipulative" and as "abusing the system". There is evidence of them being experienced by health care professionals as "difficult" patients and they may attract inconsistent or even abusive "care" (Watts & Morgan, 1994). These negative experiences can be perceived as "a replication of person's existing network of dysfunctional relationships, and therefore may become a maintaining factor" (Sheard *et al.*, in press).

There are a number of features that are predictive of repetition following an episode of DSH. The best established are listed below, and are quoted from NHS Centre for Reviews and Dissemination, (1998);

- A history of self- harm prior to the current episode
- Psychiatric history, especially as an inpatient
- Current unemployment
- Lower socio-economic status
- Alcohol / drug abuse
- Criminal record
- Anti- social personality
- Hopelessness
- High suicidal intent

Although it is often assumed that those who repeat DSH are predominately women, the excess of women among chronic repeaters is probably no greater than among the self-harming population as a whole, (Kreitman & Casey, 1988). There has been little research to date concerning multiple repeaters, except for a sub-group who meet criteria for borderline personality disorder, many of whom have been subject to abuse in childhood, (Linehan, 1993).

1.7.9 Poor Treatment Outcome

Despite the fact that repeated suicide attempts are a common problem, there have been few randomised-controlled studies conducted to date. Research available indicates the limited success of interventions in reducing DSH. Van der Sande, Buskens, Allart, van der Graaf, van Engeland (1997) in a review of the literature found that the combined results of four studies on cognitive-behavioural therapies demonstrated a significant preventive impact on repetition. However, the authors draw attention to methodological problems which may have influenced the results in a positive direction, and suggest that additional research is required to establish the efficacy of this approach.

A more recent meta-analysis found no conclusive evidence of efficacy of interventions in reducing repetition, (Hawton *et. al.* 1998). The main interventions that have been evaluated in the trials are: a brief psychological therapy (problem solving therapy; more intensive but conventional psychiatric care; provision of a crisis card; intensive psychological therapy (dialectic behaviour therapy) and pharmacological treatments. The average effect was small, trials tended to lack statistical power, and as would be expected with this pattern there was evidence of publication bias (Sheard *et. al.,* in press). There were marked variations in interventions, subjects, and protocols for "treatment as usual" controls. Most interventions were short but ineffective, while a single trial of Dialectical Behaviour Therapy (DBT) (which involves a year of weekly individual and group therapy) did result in a significant and sustained reduction of repetition (Linehan, 1993). DBT developed for use with people who repeatedly self-harm with a borderline personality disorder, is the only published intervention that explicitly seeks to address the problem of collusive re-enactment by therapists. This may explain it being the only model to show a sustained effect in a clinical trial (Sheard *et. al.* in press).

1.8. Research examining Staff Attitudes to DSH

Professional responses to self-harm vary according to theoretical stance, but also according to the attitudes of the staff involved. The cognitions of health care professionals have not been the focus of much research. One possible explanation for this may be the implicit acceptance that health care professionals behaviour is based on empirical knowledge, (Johnston & Marteau, 1987). Thus their beliefs and behaviour are assumed to be independent of context. Eisenberg (1986) argues that there are huge variations in medical practice because much knowledge is ambiguous and few services are absolutely necessary. Factors influencing practice may include beliefs and attitudes of health professionals.

People who harm themselves are not popular with health services staff (Ramon *et. al.,* 1975; Creed & Pfeffer, 1981). They suffer from the stigma of psychiatric problems, and those who present repeatedly with DSH may be particularly susceptible to this problem (NHS CRD, 1998). NHS staff may have to deal with a crisis, only to be confronted with the same problem a few months later. This is bound to generate a sense of frustration and hopelessness (Melville and House, 1999).

The study of attitudes towards DSH in nurses is a neglected area. There has been little empirical research and many of these have reported that nurses have negative attitudes towards such patients, (Patel, 1975; Platt & Salter, 1987). Nursing and medical staff often experience frustration in working with patients who deliberately self-harm (Burrows, 1992). This, in part, can be attributed to the belief that their role as health care professionals is to assist the deserving sick. This belief often causes them to deal with the patient in a judgmental manner (Greenwood & Bradley, 1997).

The most commonly cited reactions by nursing staff to attempted suicide are anger, frustration, lack of empathy, and fear of involvement (Goldney & Bottrill, 1980; Alston & Robinson, 1992). These attitudes can be

communicated to the patient and subsequently the quality of the intervention can be affected. Hemmings (1999) interviewed a sample of A&E nursing and medical staff and found a high degree of ambivalence, frustration and distress with regard to people who self-harm. Similarly, a comparison of A&E staff with intensive care staff found that the A&E staff tended to hold the most negative attitudes (Suokas & Lonnqvist, 1989b). Sidley (1996) found more ambivalence in his study of nurses in A&E and general medical wards. Although professionally their reactions to self-harming patients were neutral, their personal attitudes tended to be negative.

1.9 Staff Characteristics increasing susceptibility to negative attitudes towards DSH

1.9.1 Professional background

Studies that compare nurses working in psychiatric settings with staff in general hospitals give varying results. Hawton *et. al.*, (1981) suggest that psychiatrists and nurses show more empathy than physicians. General physicians expressed a more negative view than nurses or psychiatrists, while nurses in the general hospital were more sympathetic than their nursing colleagues at a psychiatric hospital (Ramon, 1980).

In contrast, in a Finnish study, Suokas & Lonnqvist (1989a) found that attitudes toward patients who attempt suicide were consistently more negative among staff in a general hospital compared with staff in a psychiatric hospital. Samuelsson, Sunbring, Winell and Asberg (1997) also investigated the attitudes towards attempted suicide patients among nurses involved in the somatic care of such patients, and compared them with psychiatric nurses. In agreement with the findings of the Finnish study they found that the psychiatric nurses were more understanding and more willing to nurse such patients. The perceived need for further training was significantly stronger among the nurses in the general hospitals. This suggests that "negative attitudes" may to some extent be a result of a lack of knowledge and uncertainty rather than a hostile attitude (Samuelsson, Sunbring, Winell & Asberg, 1997).

1.9.2 Lack of Training in mental health/ DSH

It has been suggested that negative staff attitudes towards patients occur in situations where staff believe that they have not received adequate training, (Ambrose, 1996). Studies have identified that although many A&E nurses were willing to offer counselling to the overdose patient, many did not feel that they had received adequate training in this area, (McLaughlin, 1994). This finding was corroborated by The Audit Commission (1996) which suggested that those with mental health problems do not receive optimum care in A&E departments, as few medical and nursing staff are equipped with the appropriate training. It appears that there is an urgent need for training for healthcare staff to deliver quality care to this vulnerable group, (Perego, 1999). McLaughlin (1994) argues that although intensive counselling may be inappropriate in an A&E setting, an improvement in the psychotherapeutic skills of A&E nurses would ensure that both the physical and psychological needs of the patient can be met.

1.9.3 Length of Experience

Length of experience has been found to be an important variable in influencing attitudes towards DSH. Research has suggested that older and more experienced nurses tended to have more positive attitudes towards this group than the younger or less experienced nurses, (McLaughlin, 1994; Anderson, 1997). Samuelsson, Asberg and Gustavsson (1997) also found evidence of older personnel being more favourably disposed than the younger nurses.

1.9.4 Sex/ Gender

Samuelsson, Asberg and Gustavsson (1997) examined the attitudes of a group of psychiatric nursing personnel towards suicidal patients. They found that women tended to be more sympathetic than men.

1.10 Attribution Theory

Attribution theory offers a framework for understanding human behaviour and is concerned with the beliefs people have about the causes of events. An attribution is an expression of the way a person thinks about the relationship between a cause and an outcome. Research has shown that the attributions individuals make for events can predict subsequent emotional reactions. Attributions about other people's needs or distressing behaviour can exert a significant impact on helping responses, (Munton, Silvester, Stratton & Hanks, 1999).

1.10.1 Attribution-Emotion Model of Helping

Weiner's attributional analysis of helping behaviour is the most comprehensive theoretical model that deals with the influence of attributions on behaviour, affect and cognitive processes. Weiner's (1980, 1986) theory of helping behaviour has two central components. Firstly, people are disposed to withhold help from an individual if the causes of their need for help are perceived to be *controllable* and *internal*. Secondly, the relationship between perception of controllability/ internality and helping behaviour is not direct, but mediated through emotions. Weiner postulates that attributions lead to emotions and that these guide behaviour. If the need for help is attributed to uncontrollable factors, then the potential helper experiences sympathy and pity, which should lead to the offering of help. Attributions to controllable and internal factors would give rise to emotional consequences such as anger, which according to Weiner lead to the denial of help. Although, Weiner does not rule out other factors involved in helping behaviour, such as expectancies or cost-benefit appraisals, the key aspect of his model is the mediating role of affects as determinants of a subject's propensity to help (Bentacourt, 1990).

1.10.2 Attribution Model of Achievement Motivation

In Weiner's model (1985) of achievement motivation, attributional *stability* is regarded as the most important determinant of expectations of success and failure. Thus, in the context of helping, it may be predicted that if a problem behaviour is attributed to a stable cause, help is less likely to be elicited since expectations of that help being successful are low, (Sharrock, Day, Qazi & Brewin, 1990). This analysis suggests an important link between attributional theories and recent demonstrations of the close associations between staff optimism and quality of care (Garety & Morris, 1984). As measured by the latter, staff optimism was in part defined as the extent to which staff thought that they could help patients and is therefore closely related to expectations of success.

Although, Weiner's research has been of value in specifying the role of attributions in helping behaviour, it is unclear what range of situations the model is expected to encompass, (Sharrock *et. al.*, 1990).

1.11 Application of Attribution Theory to Challenging Behaviour

In relation to challenging behaviour, it would be predicted from Weiner's model that staffs' helping will be mediated by their causal attributions for the challenging behaviour (Fenwick, 1995). Hastings and Remington (1994) suggest that there is a high probability that inappropriate care staff beliefs about the causes of challenging behaviour will lead to similarly inappropriate interventions. This has received some support from Oliver, Hall, Hales and Head (1996) with regard to self-injury.

There have been few published attempts to test Weiner's predictions for staff working with people with challenging behaviour. Sharrock *et. al.*, (1990) conducted a study of 34 staff working in a medium secure unit for mentally disordered offenders. The study examined the relationship between attributions of internality, globality, controllability and stability, feelings of anger and

sympathy, optimism concerning potential for change and the self- reported likelihood of offering extra help. Staff all referred to the same target patient. Each staff member identified a cause for each of 14 "negative, institutionally relevant behaviours" and rated each cause on the attributions of internality, globality, controllability and stability. They then rated their overall level of optimism, their willingness to offer extra help and their emotional response to the named patient.

The findings supported the prediction that attributions of problem behaviour towards *unstable* factors is associated with higher levels of staff optimism, which in turn relates to increased helping behaviour. The conclusion was reached that it was *optimism*, more than emotional reactions as predicted by Weiner (1980. 1986), that was linked with helping behaviour. This raises the possibility that staff may to some extent habituate to problem behaviour, so that affective responses no longer provide the levels of motivation presumed by Weiner, (Sharrock *et. al.* 1990).

Dagnan, Trower & Smith (1998) conducted a more recent study exploring the application of Weiner's cognitive- emotional model of helping behaviour. Care staff responses to the challenging behaviour of people with learning disabilities were examined. The study attempted to replicate the Sharrock study, although there were a number of significant changes to the method. Six examples of challenging behaviour were presented, and for each behaviour staff were asked to suggest a probable cause, rate attributions of stability, internality, globality and controllability for their cause, their optimism for change of the behaviour, their evaluation of the behaviour and of the person displaying the behaviour, their emotional response to the behaviour and their willingness to put extra effort into helping change the behaviour.

This study finds some support for Weiner's attributional model of helping behaviour. Results based on 40 care staff working with people with learning disabilities show a significant correlation between the attribution of controllability to the cause of a challenging behaviour, negative emotion, a

lower level of optimism and less willingness to offer extra help. The conclusion was reached that helping behaviour is most predicted by the level of optimism, optimism is most predicted by negative emotions and negative emotions are most predicted by the attribution of controllability to the cause of the behaviour. There was some confirmation of Weiner's model in that the attribution of controllability was also negatively correlated with positive affect. However, positive affect did not correlate with either optimism or helping.

A recent study by Stanley and Standen (2000), examining carers' attributions for challenging behaviour has also provided some support for Weiner's model. The study concluded that greater attributions of control were positively correlated with negative affect, but that only positive affect correlated significantly with helping and in the predicted direction.

1.12 Application of Attribution Theory in Medical Settings

Attribution theory has recently been applied in medical settings. Marteau and Riordan (1992) examined the influence of staff causal attributions on attitudes towards patients. 48 nurses and doctors were presented with case histories of patients suffering from various physical conditions. The variable of the patient undertaking a relevant preventative health measure was manipulated. It was found that staff expressed more negative attitudes towards patients who had failed to undertake health actions. The conclusion was reached that the effect of this information is mediated by perceived controllability of the illness, as predicted by Weiner's attributional model of helping.

A more recent study was undertaken in the area of chronic pain (Chibnall and Tait, 1999). In this study eight vignettes describing a person with chronic low back pain were varied in terms of patient's ethnicity, litigation status and medical evidence. Participants read the vignettes, made attributions of causality for the person's pain and disability, and evaluated the severity of the pain syndrome. Pain and disability were perceived as more legitimate when the person in pain was a non-litigant and when medical evidence was strong.

Evaluations of syndrome severity were more extreme when evidence was strong. These findings provide further evidence for the influence of social variables in judgements of patients' difficulties, (Chibnall & Tait, 1999).

1.13 Aims and Objectives

The current study draws on previous related studies in attempting to examine the relationship between attributions, emotional responses, optimism and helping behaviours in a medical setting in relation to DSH. There have been no published studies in relation to DSH specifically undertaken to investigate these factors, and previous research has examined general staff attitudes towards DSH. The present study is designed to overcome some of the methodological weaknesses present in previous research examining staff attributions. The criticism of hypothetical scenarios generating qualitatively different attributions is addressed by incorporating the additional component of examining A&E staffs' real-life encounters with DSH patients.

If there is evidence of a relationship between staff attributions and subsequent responses, there may be some scope for providing training addressing the cognitive and emotional responses of staff in this area, which may ultimately improve the service offered to those who present to A&E departments with DSH.

1.13.1 Aims

- To examine and compare the causal attributions of A&E staff for deliberate self- harm acts in both hypothetical and real life situations.

- To assess the impact of precipitants (death of a close friend as opposed to having huge financial debts) and the frequency of occurrence of self- harm (first presentation at A&E as opposed to sixth) on staff causal attributions for DSH in hypothetical situations.

- To investigate the relationships between staffs' causal attributions, emotional responses, optimism and helping behaviour.

- To assess the impact of staff factors, such as sex and professional background, on emotional responses, optimism and helping behaviours.

- To examine A&E staffs' empathy towards and understanding of people who present with DSH, and their perceived need for further training in this area.

1.13.2 Objectives

- To present staff with a hypothetical scenario to examine the nature of staff causal attributions, emotional responses, optimism for change and helping behaviour. Contextual factors will be experimentally manipulated to examine the impact on the dependent measures.

- To compare these findings with an analysis of spontaneous attributions of staff by developing a method for free reporting of real-life cases and analysis of narrative responses.

- To apply Weiner's (1980, 1986) attributional model of helping to the treatment of patients presenting with deliberate self-harm to Accident and Emergency departments, and to test the following hypotheses.

1.14 Hypotheses

1.14.1 Questionnaire study

Hypothesis 1: DSH acts perceived to have a more controllable precipitant (i.e. financial debts) will generate higher ratings of controllability than those perceived to have a less controllable precipitant (i.e death).

> **Null hypothesis**: There is no significant difference between the precipitants on ratings of controllability.

Hypothesis 2: Frequent acts of DSH will generate higher ratings of stability than an initial presentation.

> **Null hypothesis**: There is no significant difference in ratings of stability between repeated and initial DSH acts.

To test the following hypotheses derived from Weiner's (1980, 1986) attributional model of helping;

Hypothesis 3: DSH acts perceived to have a controllable and internal cause will be associated with greater negative affect (i.e irritation and frustration) than those perceived to have an uncontrollable and external cause

> **Null hypothesis:** There is no significant relationship between controllability and internality of causal factors and emotional response.

Hypothesis 4: DSH acts generating greater negative affect will be associated with a reduction in helping behaviour.

> **Null hypothesis**: There is no significant relationship between emotional response and helping behaviour.

To test the following hypothesis from Weiner's (1985) model of achievement motivation, and the "optimism" models of Sharrock *et. al.* (1990) and Dagnan *et. al.* (1998);

Hypothesis 5: DSH acts perceived to have a more stable cause/ outcome will be associated with less optimism than those perceived to have a less stable cause/ outcome.

> **Null hypothesis**: There is no significant relationship between stability and staff optimism.

Hypothesis 6: Reduced optimism will be associated with decreased helping behaviour.

> **Null hypothesis**: There is no significant relationship between staff optimism and helping behaviour.

1.14.2 Free Response Study

To test the following hypotheses from the analysis of spontaneous attributions;

Hypothesis 1: Staff will be less sympathetic towards more controllable, more stable, more internal acts of DSH.

> **Null hypothesis**: There will be no significant difference between the DSH "sympathetic" and "unsympathetic" cases on ratings of controllability, stability and internality.

Hypothesis 2: Staff will express more positive emotional responses, greater optimism and helping behaviour towards the patients generating more sympathy.

> **Null Hypothesis:** There will be no significant differences in emotion, optimism and helping behaviour between the sympathetic and unsympathetic cases.

Hypothesis 3: DSH acts perceived to have a more controllable cause will be associated with greater negative affect than those perceived to have a less controllable cause.

Null hypothesis: There will be no significant relationship between controllability of causal factors and emotional response.

Hypothesis 4: DSH acts generating greater negative affect will be associated with a reduction in helping behaviour.

Null Hypothesis: There is no significant relationship between emotional response and helping behaviour.

Hypothesis 5: More stable causal attributions will be associated with reduced optimism.

Null hypothesis: There will be no significant relationship between stability of causal factors and optimism.

Hypothesis 6: Reduced optimism will be associated with decreased helping behaviour.

Null Hypothesis: There is no significant relationship between staff optimism and helping behaviour.

CHAPTER 2

METHOD

2.0 METHOD

In this section the methodology for investigating the aims of the study and testing the hypotheses will be outlined. The design of the study will be described justifying the choice of a two-part study, by discussing the issues relating to the measurement of causal attributions. The study is composed of two parts; an experimental study utilising hypothetical vignettes and questionnaire-based responses, and a free-response study eliciting real-life clinical cases and completion of questionnaire responses. For each part, the recruitment of participants, subject characteristics, measures used, and the procedure will be described.

2.1 Devising a Methodology for Measuring Causal Attributions of A&E staff of DSH acts

The main focus of this study was to investigate the causal attributions of A&E staff concerning patients who present with deliberate self-harm. It was therefore necessary to decide a methodology that would be most suitable and how it could be adapted for this group.

2.1.1 Assessment of Causal Attributions

2.1.1.1 The Attributional Style Questionnaire (ASQ)

The most common means for exploring attributions has been the questionnaire. One of the best established is the Attributional Style Questionnaire, or ASQ developed by Martin Seligman and his colleagues, (Seligman, Abramson, Semmel and Von Baeyer, 1979). The questionnaire presents people with hypothetical events, asks them to identify a possible cause for each event, and then rate that cause on seven-point rating scales assessing dimensions of controllability, stability, internality and globality.

From a research perspective, using hypothetical events and rating scales to tap causal beliefs has obvious advantages. Questionnaires and vignettes are easy to

administer so a greater number of staff can be sampled, the results are instantly quantifiable, and respondents all rate the same events. By using hypothetical scenarios other extraneous variables can be controlled for. However, the disadvantage is that hypothetical events may yield qualitatively different causal attributions to real life events, as additional contextual information often provided during normal experience is lost (Munton *et. al.*, 1999).

2.1.1.2 Assessment of Spontaneous Causal Attributions

The shortcomings of the ASQ prompted the development of methods to analyse the spontaneous causal attributions people make in natural conversation. The primary advantage of this method is that it is likely to have greater ecological validity. Actual real life events will be more meaningful for the individual than those described in a hypothetical situation. The Leeds Attributional Coding System (LACS) (Stratton, Munton, Hanks, Heard & Davidson, 1986) was developed for the measurement of spontaneous causal attributions, and is concerned with quantifying qualitative data. Events are extracted form transcripts and the causal material explaining the event is highlighted. Attributions are rated on a three-point scale. The LACS technique has been successfully adapted for use with various populations (Brewin, MacCarthy, Duda & Vaughn, (1991) to assess the causal attributions of relatives of patients with schizophrenia. It was decided that an adaptation of the LACS would be used for the measurement A&E staffs' causal attributions for DSH. (These modifications will be described in later sections Section 2.10.2/ 3).

2.1.1.3 Adaptation of the Five-Minute Speech Sample to elicit Spontaneous Causal Attributions

The aim of the free reporting study was to encourage A&E staff to talk about their experiences of treating patients presenting with deliberate self- harm. The Five-Minute Speech Sample is a method for measuring expressed emotion during a five-minute monologue, and has been applied to a variety of populations (Magana, Goldstein, Karno, Miklowitz, Jenkins, J & Falloon, 1986). It was decided that this would be an appropriate methodology to elicit free response speech samples that could then be transcribed and coded. (This procedure is described in Section 2.9.2).

It was decided that the study would involve two parts to investigate causal attributions in both hypothetical and real-life situations, and enable a comparison;

i) An experimental questionnaire based study whereby subjects would be presented with hypothetical scenarios of DSH cases in which certain contextual factors are manipulated and

ii) An interview based study whereby staff would be asked to describe actual patients who had presented with DSH to the A&E department in which they worked.

2.2 Recruitment of subjects

The researcher contacted the local Ethics Committee to ascertain whether ethical approval was required to undertake the study. Ethical approval was not required to undertake the study as the participants were all NHS staff, and there was no contact with patients. However, advice was given to obtain written approval from the Consultants and Nurse Managers from each department.
The subjects in this study were recruited from four Accident and Emergency Departments, and included qualified nurses and junior doctors. An initial letter

outlining the study was sent to each of the Consultants and Nurse Managers requesting access to staff. A follow-up meeting was arranged with the Clinical Management Teams to discuss the proposal in greater depth, prior to approval being granted to undertake the research.

2.3 Experimental Questionnaire Study

2.3.1 Participants

Subjects were recruited to the study via the author approaching staff individually in the A&E departments, and inviting them to participate in the study. A total of 180 questionnaires were distributed, of which 89 were returned; a response rate of 49%. There was a similar response rate from medical and nursing staff: 46% and 51% respectively.

A sample of 89 qualified nursing and junior doctors was obtained from a total staff population of approximately 200 across four hospital sites. Agency staff who did not work on the unit on a regular basis were excluded from the study. The sample was 33% male and 67% female, 66% nursing and 34 % medical staff. The mean age of the sample was 30.9 (SD = 7.28), with a range of 21 to 54. The median length of experience working in A&E was 29 months (range of 1 to 324).

2.3.2 Devising ecologically valid scenarios for Questionnaire

2.3.2.1 Demographic/ Contextual Material

It was important to ensure the hypothetical scenarios were representative of the types of DSH cases that present to Accident and Emergency departments. This was achieved by the following method. Firstly, by drawing on data from the Manchester and Salford Self-Harm (MASSH) project (Cooper & Appleby, 1998). This provided information on the most frequently occurring demographic factors, for example, sex of person presenting with DSH, age, and method of self-harm. Other variables such as time of day and week were incorporated from the MASSH statistics. The second source of information for

devising the vignettes was gleaned by asking six volunteer medical and nursing staff to describe the "last person" who presented to A&E with DSH and the "most typical" case. Staff were requested to speak about an individual who had recently presented to A&E for a five minute period using a procedure based on the Five-Minute Speech Sample (Magana *et. al.,* 1986). (See section 2.9.2 for further details of administration). Results indicated that the most common characteristics of deliberate self-harm attenders were female, single, and having taken an overdose, most commonly with analgesics, presenting later in the evening.

2.3.2.2 Precipitants to DSH

In order to test the influence of reported precipitants on staff causal attributions, and the impact of attributions on affect, optimism and helping behaviour, two contextual factors/ attributional dimensions were manipulated in the vignettes. The first manipulation was that one of two life events preceding the hypothetical DSH act was incorporated in the scenario; either the "death of a close friend", or "having got oneself into huge financial debts". These were selected as the former would usually be perceived to be an uncontrollable precipitant, and the latter a controllable one. Using guidelines from the Leeds Attributional Coding System (LACS) causes are rated as controllable if "the person could normally manage to significantly influence the outcome in the absence of exceptional effort or circumstance" (Stratton *et. al.,* 1986).

It was important to ensure that these two life events would be perceived to have a comparable impact so as not to bias subjects' ratings. The Life Stress Inventory (Holmes & Rahe, 1967) indicates that these two life events are experienced as equally stressful. In this particular inventory, death of a close friend and change in financial state are given ratings of 37 and 38 respectively out of a total score of 100.

2.3.2.3 Frequency of DSH

The second contextual factor/ attributional dimension manipulated in the questionnaire study was the number of previous presentations at A&E with DSH. This was either "first" or "sixth". Again, this manipulation of "stability" on staff causal attributions was justified using LACS guidelines, (Stratton *et. al.* 1986). These specify that causes are usually perceived to be stable if the person "expects the cause to be exerting an influence in the future".

2.4 Design

The study was a 2 * 2 between-subjects factorial experiment. The independent variables (controllability of precipitant and stability of occurrence) were manipulated across four written vignettes (each vignette representing one of the four possible combinations of the two independent variables) that provided information about a person who had deliberately self-harmed presenting to Accident and Emergency.

Each independent variable could assume one of two values: precipitant was either the death of a close friend or financial debts (uncontrollable versus controllable); and frequency of presentation was either first or sixth (unstable versus stable). In addition to the independent variables, the vignettes contained other information that was held constant across all vignettes, that was included to increase the fidelity of the vignette and to decrease hypothesis speculation by the participants. This was validated by data from the MASSH project and pilot staff interviews. Each subject read one of the four vignettes. Figure 1 displays a sample vignette, including the wording that was used to operationalise each of the independent variables and the information that was held constant.

Figure 1: Case vignette

It is 11 o' clock on a Saturday night and you are on shift in the A&E Department, which is extremely busy. Jane is a 27 year-old white, single, unemployed woman, who currently lives alone. She arrives at A&E, accompanied by a female friend who reports that Jane has taken an overdose of paracetamol. Jane is fairly uncommunicative, quietly spoken and tearful. She tells you that she probably swallowed about 18 tablets. **[She reports that 6 months ago a close friend died]. [She reports that she has got herself into huge financial debts]. [This is the first occasion that Jane has presented to A&E having harmed herself]. [This is the sixth occasion that Jane has presented to A&E having harmed herself].**

Note. Information that was varied across the four vignettes appears bolded and in brackets. All other information was held constant.

A between subjects design (one vignette per subject) as opposed to a within subjects design (four vignettes per subject) was selected for two reasons. Firstly, it was thought that if subjects only considered one vignette any transparency effect and social desirability bias would be reduced and secondly, the time taken to complete the questionnaire would be considerably shorter. This was a particularly important consideration in view of the busy and unpredictable nature of A&E departments, and aimed to increase the likelihood of staff completing the questionnaires.

2.5 Sample Size

Power analysis was used to decide the size of the sample required for this study. Two power calculations were computed. The first was computed to determine the size of groups required for a group comparison, by assessing the size of significant difference on outcome measures used in similar studies. This was calculated by using a graphical method in the form of a nomogram (Altman, 1991). From data obtained from Dagnan *et. al.,* (1998) which examined the

effects of staff attributions for challenging behaviour on affect, optimism and helping, it was estimated that 120 subjects would be required (30 in each group) to detect a difference between attributional ratings at the .05 significance level, with 80% power.

The second power calculation was based on a correlational design, using multiple regression analysis. The dependent variables required a restricted number of predictor variables; the restriction was ten cases per predictor variable. It was estimated that up to 10 independent variables may be entered into a multi-variate analysis to predict the dependent variable of helping behaviour. Thus a minimum of 100 subjects recruited allowed up to 10 variables in a multiple regression.

2.6 Procedure

The four vignettes were allocated via a process of stratified randomisation to control for the sex and professional background of participants, and ensure that the four different vignettes were equally distributed amongst the four possible groups of staff, (male doctors, female doctors, male nurses and female nurses). These variables were controlled for as previous research has suggested that these factors may influence the attitudes of staff towards self-harm patients. Four individual lists of random numbers were obtained, and a separate block randomisation list was produced for each of the four sub-groups. Stratified allocation is based on block randomisation within each stratum rather than simple randomisation to ensure a balance of vignettes within each strata. Consecutive staff members were handed questionnaires by the researcher in various A&E departments. This strategy of face to face contact was adopted, as opposed to sending the questionnaires by post, as a way of increasing the response rate. Staff were informed that they could complete the materials at home or work.

All participants initially read an information sheet outlining the purpose of the study, and their role in it (Appendix 1). They were required to complete a

demographic sheet, which requested the participant to identify their hospital base, age, sex, profession, and length of experience in A&E (Appendix 2).

Following this, participants read one of the short hypothetical vignettes and responded to the dependent measures, which are detailed in section 2.7. Briefly, these included the attributions rating scale, emotional responses scale, optimism scale, helping behaviours scale, DSH Training Scale and Understanding of Deliberate Self-Harm Questionnaire (UDSHQ). This questionnaire addresses staff understanding and empathy towards deliberate self-harm attenders. Completed questionnaires were mailed back to the researcher anonymously in a pre-paid envelope.

2.7 Measures

2.7.1 A&E Staff Responses to DSH Questionnaire

This included instructions to participants and the hypothetical vignette (Appendix 3), a modified version of the ASQ, the emotional response scale, the optimism/ pessimism scale and the helping behaviour scale. Thus, the dependent variables were of four types: a) attributions of controllability, stability of cause, stability of outcome and internality: b) emotional responses; c) optimism for change; and d) willingness to help. These were all rated on likert scales that ranged from 1 to 7.

2.7.2 Modified version of ASQ

The Attributional Style Questionnaire (ASQ) modified according to Peterson, Semmel, von Baeyer, Abramson, Metalsky & Seligman (1982) was utilised to allow open-ended identification of causes and fixed scale ratings of four attributional dimensions. Having read one of the four vignettes staff were asked to identify possible causes and rated their attributions of this cause on a seven point bipolar scale for locus of control, stability of cause, stability of outcome and internality. All of the questions were worded exactly as they appear in the ASQ, except for the fact that the stability of outcome dimension was added.

The stability of cause question reads as follows, "To what extent do you think that factor(s) precipitating the overdose are within X's control?" The stability of outcome question was worded, "If X were to present in the future having taken an overdose, how likely is it that factors precipitating the overdose will again be present?" The latter was incorporated in view of literature that suggests that information about the causal belief can be provided not only by the nature of the cause, but by the link between cause and outcome, and by the nature of the outcome (Stratton *et. al.,* 1986). Weiner (1979) highlighted the need to incorporate measures of beliefs about outcomes in any attributional analysis. Stratton *et. al.,* (1986) suggest that a failure to be explicit about which aspects of the statement were being coded could result in considerable unreliability in judgements, and that stability of outcome may be important because invariably outcome comes to function as a cause in attributions. Higher scores on the controllability and stability scales indicated greater controllability and stability. A lower score on the internality dimension represented higher internality (Appendix 4).

2.7.3 Emotional Response Rating Scales

These were devised from the emotional responses identified by Weiner (1980) as impacting on helping behaviours, and have been used in other studies examining attribution theory, (Sharrock *et. al.*, 1990; Dagnan *et. al.* 1998). The only change that was made is that "anger" and "disgust" were replaced by "irritation" and "frustration", as these labels for emotions were considered to be less susceptible to a social desirability bias. Staff were asked for their emotional response to each vignette by rating four emotions (irritation sympathy, pity and frustration) on a seven point bipolar scale. Higher scores indicated greater levels of emotion (Appendix 5).

2.7.4 Optimism/ Pessimism Scale

This was based on the Optimism-Pessimism Scale (OPS) developed by Moores & Grant (1976), which was originally devised for staff working with clients with a learning disability. The scale assesses staff expectations of "the potential level of accomplishment of their patients and the extent to which the nurse can affect the situation", (Garety & Morris, 1984). For the purposes of the current study the questions were adapted so they were applicable to A&E staff. Staff were asked to indicate their response to two questions concerning the potential for reducing the person's self- harming behaviour. The questions concerned their optimism for their personal input making a change and a more general question about their optimism for the success of follow-up services. Firstly, staff were asked "To what extent do you think that your personal input in A&E would have a positive impact in reducing X's self-harming behaviour in the future?" Secondly, they were asked "To what extent do you think that any follow-up treatment offered to X would be successful in changing her behaviour?" Higher scores indicated greater optimism (Appendix 6).

2.7.5 Helping Behaviour Scale

This scale was based on the question used by Weiner (1980) in which subjects were asked how much effort they would exert in helping a person. It was comprised of three questions devised for the purpose of this study, which related to willingness to prioritise the person described in the vignette, to offer extra time and support, and the likelihood of the staff member initiating a referral to another appropriate service. The questions were as follows. Firstly, "Given the busy nature of your work, is X someone you would perceive as low or high priority, in terms of staff time and NHS resources?" Secondly, "Is X someone you would be willing to offer extra time and support to in the A&E Department?" Finally, "Is X someone you would consider referring to another appropriate service?" (Appendix 7). Each was scored on a seven point bipolar scale and higher scores indicated a greater willingness to put extra effort into helping. Statistical analysis indicated an acceptable inter-item correlation,

suggesting that the scales were internally consistent hence supporting the reliability of the measure (Cronbach's alpha = .75). Individual scores on the helping scales were aggregated to form a total score

2.7.6 Understanding of DSH Questionnaire (UDSHQ)/ DSH Staff Training Scale

The UDSHQ and DSH Staff Training Scale were developed for use in the present study on the basis of a questionnaire originally devised by Suokas & Lonnquist (1989). The original questionnaire contains 41 items developed to reflect various attitudes towards suicidal patients. Samuelsson, Asberg and Gustavsson (1997) adapted this to include 17 questions; 11 items reflect emotional attitudes to patients, 2 concern a perceived need for further training, and 4 reflect the need for psychiatric treatment for suicidal patients. The 11 items reflecting emotional attitudes were summed to form the Understanding of Suicidal Patients Scale (USP), which is assumed to measure the understanding and willingness to nurse patients who have attempted suicide. This has been shown to have an acceptable level of reliability (Cronbach's alpha .74), (Samuelson *et.al.* 1997). The present study modified the 17 item questionnaire for use with A&E nurses attitudes towards patients who deliberately self-harm. 13 of the original items were retained; two questions examine the need for further training, (DSH Staff Training Scale), and are scored on a four point Likert scale (Appendix 8). The remaining 11 questions examine emotional attitudes (empathic or rejecting) to patients (UDSHQ), and these are also scored on a four point Likert Scale. The scale has a possible scoring range of between 11 and 44. Lower scores on the measure signify greater levels of empathy and understanding towards DSH patients (Appendix 9). The exact wording of the training and empathy questions was retained from the original scale, apart from the fact that the term "deliberate self-harm" was substituted for "attempted suicide" to increase the applicability to the present study.

2.8 Pilot Free Response Study

2.8.1 Aims

i) To assess the average length of the interview to check that it would not be excessively long in view of the busy nature of the A&E department.

ii) To ensure that staff were able to recall adequate information to speak for this length of time about patients who had presented to A&E.

iii) To ensure the speech samples elicited quantifiable data for the purposes of analysis.

2.8.2 Participants

The researcher attended each of the A&E departments included in the study to introduce the research to staff and request volunteers to partake in a pilot study. The pilot group consisted of seven volunteer nursing and medical staff (4 nurses and 3 doctors) who were interviewed within the A&E department in which they worked.

2.8.3 Design

A repeated-measures design was utilised; staff were requested to describe two patients, and complete dependent measures for each.

2.8.4 Procedure

Staff were each asked to describe two patients who had presented with deliberate self- harm for a period of five minutes each. Firstly, a patient whom they had felt "sympathetic" towards and secondly, a patient whom the felt "unsympathetic" towards. Staff were requested to describe two patients whom elicited opposed emotional reactions to enable a comparison of causal attributions, optimism and helping behaviour. The pilot study was conducted using the modified version of the Five-Minute Speech Sample. (See section 2.9.2 for instructions to participant).

2.8.5 Results

The results indicated that the interview to be of an acceptable length, with a mean length of 23 minutes in total, including the completion of the measures. It highlighted that the interviews failed to elicit an adequate number of spontaneous causal attributions. However, the responses to the direct question about causality in the ASQ could be coded using the LACS guidelines, and information provided in the speech samples could be used to assist with ratings of controllability, stability of cause, stability of outcome, and internality. (This procedure is described in Section 2.10.2 and 2.10.3).

2.8.6 Modifications

Following the pilot study it was decided to reduce the Five-Minute Speech Sample to a two-minute period, as it was difficult for staff to speak about one particular patient for more than this length of time. To reduce the staffs' anxieties a clear statement regarding confidentiality was made at the beginning of the interview.

2.9 Free Response Study

2.9.1 Participants

Due to the busy nature of the work in A&E volunteer nursing and medical staff self-selected to participate in this part of the study. A total of 20 medical and nursing staff participated in this part of the study.

2.9.2 Procedure

The researcher outlined the study verbally and also gave the staff member a written information sheet (Appendix 10). The participant was asked for their permission to audio-tape the interview, and the purpose of this explained. Participants were invited to ask any questions about the study and/ or raise any concerns. If they were agreeable to taking part and to the interview being audio-taped they were asked to sign a consent form (Appendix 11).

Using a modified version of the FMSS (Magana *et. al.* 1986), participants were asked to identify and describe two patients; one who had presented recently with deliberate self- harm whom they felt "sympathetic" towards and another whom they felt "unsympathetic" towards. They were asked to speak about each individual for a two-minute period. Table 2 outlines the instructions adapted from the FMSS.

Table 2: Instructions to participants to elicit descriptions of patients who have presented to A&E with DSH (adapted FMSS)

I would like to hear your thoughts and feelings about (DSH patients), in your own words, and without my interrupting with any questions or comments. When I ask you to speak I would like you to speak for (four) minutes in total. (First of all, I would like you to describe a patient who presented to A&E with DSH whom you felt sympathetic towards for two minutes, and secondly, to describe a patient who presented to A&E with DSH whom you felt unsympathetic towards for two minutes). After you begin to speak, I prefer not to answer any questions until after the two minutes are over. Do you have any questions before we begin?

Note. Information adapted for the purpose of the study appears in brackets. (Appendix 12 outlines further instructions on acceptable prompts etc.)

2.9.3 Measures

Having described the individual that the staff member felt "sympathetic" towards, he/ she was asked to identify the cause of the patient's DSH and also to specify whether it was the patient's first presentation to A&E with DSH, or whether he/ she had presented in the past with DSH. They were also asked to complete the attributional, emotional response, optimism and helping measures used in the questionnaire study (Appendix 13). This procedure was repeated for a patient who the individual staff member felt "unsympathetic" towards. Participants were also asked to complete the Understanding of DSH Questionnaire (UDSHQ) used in the questionnaire study.

2.10 Analysis of Transcripts

2.10.1 Transcribing the Interviews

The audio-taped interviews were transcribed into written, verbatim scripts. The scripts were made anonymous by removing the names of the staff and replacing these with a subject number. This was important to reduce any possibility of bias in analysis and interpretation, as the interviewer was also the rater of the scripts and may have remembered details of the staff member.

2.10.2 Coding explanations on causal dimensions

Due to the fact that the speech samples elicited few spontaneous causal attributions, it was decided to analyse the causes provided by the participants in response to the direct question about the reasons/ causes for DSH, and use additional information provided in the transcript to assist with rating. The Leeds Attributional Coding System (LACS) (Stratton *et. al.*, 1986) was used for the measurement of attributional statements, with some further modification to the system. The LACS is concerned with quantifying qualitative data. Attributions taken from written or spoken material are coded into numbers to make them more amenable to statistical analysis. The LACS uses binary ratings for scoring causal dimensions (score 0 or 1); and separate ratings can be used

when causal information is ambiguous or insufficient to make a judgement (score 9).

2.10.3 Adaptation of Guidelines for Coding Attributional Statements

Guidelines for reliably coding causal attributions on relevant causal dimensions were required. The following causal dimensions were chosen for assessment as these were the ones used in the questionnaire; controllability, stability of cause, stability of outcome and internality. In accordance with the LACS a score of 0, 1, or 9 was coded on each dimension. Scores 0 and 1 referred to the poles of the dimension (for example, score 0 = uncontrollable, unstable, external and score 1 = controllable, stable and internal). A score of 9 was given when a cause was rated as unrateable due to insufficient or ambiguous causal explanation.

It was important to ensure that the staff member's beliefs were being rated and not those of the rater. However, the rater was allowed to use information from the transcripts to guide their ratings when it was difficult to assess the statements on the causal dimensions.

Guidelines for coding causal dimensions were compiled (Appendix 14). For the dimension of controllability, the rater was instructed to consider the cause and not the outcome, as is suggested by the LACS. This was decided due to the fact that the outcome in all cases was constant, that is a DSH act, and because DSH is essentially considered to be a voluntary act and would thus bias the ratings in the direction of controllability. An additional dimension of stability of outcome was included to measure the possibility of future occurrence. This was coded in terms of frequency of presentation at A&E with DSH; initial or repeated.

2.10.4 Establishing Reliability of Coding Causal Attributions

It was necessary to assess inter-rater reliability for the coding of causal attributions. Six participants' transcripts (12 in total, 2 for each participant) were randomly selected. The author and Christine Barrowclough (CB) coded the causal attributions independently using the coding guidelines. Cohen's kappa statistics of inter-rater reliability for the dimensions of controllability, stability of cause, stability of outcome and internality were as follows: controllability, .92, $p < .001$; stability of cause, .52, $p = .001$; stability of outcome, 1.00, $p = .001$; internality, .90, $p < .001$). It was concluded that the instructions for coding causal attributions were adequate, and that coding was reliable for the author to proceed independently with the dimensional rating of causal material for all remaining subjects.

CHAPTER 3

RESULTS

3.0 RESULTS

3.1 Overview

The analyses will be divided into two parts: the factorial experimental questionnaire, and the free-response study. The questionnaire analyses will include the following. Firstly the demographic characteristics of the staff included in the study will be presented. This will include staff scores on the Understanding of Deliberate Self-Harm Questionnaire (UDSHQ) and their perceived need for further training. Following this an analysis of the effect of staff variables (sex of staff and their professional background) on the dependent measures of emotional responses, optimism and helping behaviour will be presented. Next, the specific hypotheses of the study will be examined; differences on the dependent measures (attributions, emotions, optimism and helping behaviour) between precipitant (death versus financial) and frequency (first versus sixth) will be analysed. Next, the associations between the attributions, emotional response, optimism and helping behaviour will be examined.

For the free-response study, the demographic characteristics of the staff will be described. Next, the specific hypotheses will be tested. An analysis of the differences in attributions, emotional responses, optimism and helping behaviour ratings between the "sympathetic" and "unsympathetic" cases will be presented. Finally, an analysis of the relationships between the dependent measures will be outlined, to determine whether the pattern of results in the experimental study is verified.

3.2 Statistical Analyses

3.2.1 Experimental Questionnaire

A Cronbach's alpha coefficient was calculated to establish the internal consistency of the three helping questions, (Cronbach's alpha = .75). For each staff member a single score for helping was obtained by summing the three 7

point items in the helping scale, and this total score is the one used in the analyses (possible range of scores on the helping scale = 3 – 21).

Skewness and kurtosis was examined for each continuous dependent variable, (controllability, stability of cause, stability of outcome, internality, irritation, sympathy, pity, frustration, personal optimism, optimism for follow-up and helping behaviour). The criteria used to determine normality was the convention of values of skewness and kurtosis in the range of between –1 and +1. The dependent variables were all normally distributed except for the irritation, optimism for follow-up and UDSHQ variables. The irritation variable and the UDSHQ were log-transformed to enable parametric tests to be used. Non-parametric tests were used to analyse optimism for follow-up, as this variable was not normally distributed following transformation.

A series of group comparison tests were undertaken to test for differences between the four hospital bases, male and female staff, and medical and nursing staff on the UDSHQ and DSH Training Staff Scale. The effects of the staff variables (sex and profession) on emotional responses, optimism and helping were examined using a series of ANOVAs. The effects of precipitant and frequency incorporated in the vignettes on the 11 dependent measures (attributions, emotional repsonses, optimism and helping) were also examined using a series of ANOVAs. Correlations were undertaken to analyse the associations between the attributions, emotional responses, optimism, and helping behaviour. Finally, multiple regression analyses were performed to assess factors that predict helping behaviour.

3.2.2 Free-Response Study

As in the questionnaire, the three 7-point helping scales were aggregated to form two total helping scores, and these are used in the analyses. (Cronbach's alphas for sympathetic cases = .79, and for unsympathetic cases = .65).

Examination of skewness and kurtosis indicated that all the dependent variables (attributions, emotional responses, optimism and helping behaviour) were non-normally distributed, therefore distribution-free statistical analyses were used. A series of Wilcoxon tests were used to analyse the differences between the "sympathetic" and "unsympathetic" cases on the attributions, emotional response, optimism and helping scales. Correlational analyses were undertaken to investigate the relationships between the dependent variables (attributions, emotional response, optimism and helping behaviour). Statistical significance is defined as $p < .05$ for all the analyses.

3.3 Experimental Questionnaire Study

3.3.1 Response Rate

In total 180 A&E staff were invited to participate in the study. 89 completed questionnaires were returned; a response rate of 49.4%. There were similar response rates from nursing and medical staff ; 51% and 49% respectively.

3.3.2 Staff Characteristics

In total 89 staff completed the questionnaire. Table 1 summarises the distribution of the four vignettes amongst staff.

Table 1: Distribution of Vignettes amongst Staff Sample

Vignette (precipitant/ frequency in parenthesis)	Number completed	Percentage of total sample
Vignette 1 (death, 1st)	21	23.6%
Vignette 2 (financial, 1st)	24	26.9%
Vignette 3 (death, 6th)	22	24.7%
Vignette 4 (financial, 6th)	22	24.7%

This indicates that there was an almost equal distribution of the different hypothetical scenarios amongst the sample of staff. The numbers of medical/ nursing staff and male/ female staff in each group were evenly distributed, due to the stratified randomisation procedure employed.

3.3.2.1 Hospital Base

The sample of A&E staff was recruited from four hospital bases. Table 2 outlines the number of staff represented in each hospital base.

Table 2: Distribution of Staff Sample by Hospital Base

Hospital Base	Number of Staff	Percentage of total sample
Withington	29	32.6%
Hope	27	30.3%
Bury	17	19.1%
Kettering	16	18.0%

The number of staff participating at each hospital base is proportional to the total number of staff at each hospital, as both Withington and Hope A&E departments are larger in terms of staff numbers than both Bury and Kettering.

3.3.2.2 Sex, Profession and Age of Staff

The sample included 60 females and 29 males; 59 nursing and 30 junior medical staff. The median age was 29 years (range = 21-55). The median and range of staff age are summarised in Table 3. A Kruskal-Wallis one-way ANOVA indicated that there was no significant difference in age between hospital bases ($x2$ (3) = 3.64, p = .30).

Table 3: Median and Range of Staff Age by Hospital Base

Hospital base	Median	Range
Withington	28.0	24 – 55
Hope	28.0	21 - 50
Bury	29.0	24 - 47
Kettering	30.5	25 - 45

3.3.2.3 Length of Experience in A&E

The median length of experience of working in A&E was 29 months (range = 1-324). Table 4 summarises staffs' length of experience.

Table 4: Staffs' Length of Experience in A&E

Length of Experience (months)	Number of staff	Percentage of sample
1- 6	21	23.6
7- 24	23	25.8
25- 60	22	24.7
61- 324	23	25.8

Table 5 summarises median and range of staff length of experience at the four hospital sites.

Table 5: Median and range of staff length of experience by hospital base

Hospital Base	Median (months)	Range (months)
Withington	24.0	2 - 276
Hope	24.0	2 - 324
Bury	13.0	1 - 264
Kettering	39.0	2 - 204

A Kruskal-Wallis one-way ANOVA indicated that there was no significant difference in length of experience between hospital bases ($x2$ (3) = 1.74, p = .63).

3.4 Group comparisons for Scores on Understanding of DSH Questionnaire (UDSHQ)

One-way ANOVAs and independent *t* tests were used to determine whether there were any significant differences between groups (hospital bases, males and females, and medical and nursing staff) on the UDSHQ. Median and ranges of UDSHQ sores and the results of the analyses are presented in Table 6. The possible range of scores on the UDSHQ is 11-44. (The scores ranged between 11 and 43). The results indicate that there were no significant differences on the UDSHQ between hospital bases, male and female staff, and medical and nursing staff.

Table 6: Median and range of UDSHQ scores: group comparisons for hospital base, sex and profession

Variable	Median (range)	Significance
Base		
Withington	23 (12 – 43)	
Hope	19 (14 – 31)	$F(3, 85) = 1.22, p = .31$
Bury	23 (15 – 37)	(ns)
Kettering	23 (11 – 31)	
Sex		
Male	23 (15 – 43)	$t(87) = 1.41, p = .16$
Female	22 (11 – 35)	(ns)
Profession		
Medic	21 (15 –43)	$t(87) = 1.14, p = .26$
Nurse	22 (11 – 35)	(ns)

(*Note.* Lower scores on the UDSHQ signify greater levels of understanding and empathy towards DSH patients).

3.4.1 Age, Length of Experience and UDSHQ scores

A series of Spearman's correlations were computed to determine whether there was an association between age, length of experience in A&E and score on the UDSHQ. There was a significant association between age and total UDSHQ score, indicating that older staff expressed more understanding towards DSH patients than the younger staff. Table 7 summarises results of the correlational analyses.

Table 7: Correlations of age and length of experience with UDSHQ (n = 89)

Variable	Correlation coefficient	Significance
Age	-.24	$p = .03$*
Length of experience	-.08	$p = .45$ (ns)

3.4.2 Summary of UDSHQ scores

- There were no significant differences between hospital bases, male and female staff, medical and nursing staff on the UDSHQ.
- There was no significant association between staffs' length of experience in A&E and scores on the UDSHQ.
- There was a significant relationship between staff age and scores on the UDSHQ, with older staff being more understanding towards DSH patients, than their younger colleagues.

3.5. DSH Staff Training Scale

3.5.1 Adequacy of Training in Relation to DSH

Staff were asked to respond to two questions regarding their training in relation to DSH. The first read as follows: "I think my present training has provided me with adequate skill to take care of people who have deliberately self-harmed". They were requested to rate their response on a four point Likert scale from 1 (I agree completely) to 4 (I disagree completely). A series of *t* tests and one-way ANOVAs were computed to analyse the differences between hospital bases, male and female staff, medics and nurses. Table 8 displays means, standard deviations, and results of the analyses.

Table 8: Means, standard deviations on Adequacy of Staff Training Scale: Group comparisons for hospital base, sex and profession

Staff Variable	Mean (SD)	Significance
Hospital Base		
Withington	2.76 (1.02)	
Hope	2.81 (0.92)	$F(3, 85) = .69$,
Bury	3.00 (0.71)	$p = .56$ (ns)
Kettering	3.13 (0.89)	
Sex		
Male	2.72 (0.88)	$t(87) = -1.18$,
Female	2.97 (0.92)	$p = .24$ (ns)
Profession		
Medical	2.37 (0.81)	$t(87) = -4.20$,
Nursing	3.15 (0.85)	$p < .0001$*

The results of the analyses suggests that there were no significant differences between hospital base and sex of staff on the variable assessing adequacy of training for caring with people with DSH. However, there was a highly significant difference between medical and nursing staff. Examination of means indicated that medical staffs' ratings were lower than those of nursing staff, suggesting that a higher number of medical staff rated towards the lower end of the scale agreeing that they had received adequate training in relation to DSH.

3.5.2 Need for Further Training in Relation to DSH

Staff were asked a second question relating to training: "I am in need of further training to be able to work with patients who have deliberately self-harmed". They were again asked to respond to the question on a four point Likert scale ranging from 1 (I agree completely) to 4 (I disagree completely). Independent *t* tests and a one-way ANOVA were computed to assess differences between the groups. Table 9 displays means, standard deviations and results of the analyses.

Table 9: Means, standard deviations for scores on need for further training scale: group comparisons for hospital base, sex and profession

Staff Variable	Mean (SD)	Significance
Hospital Base		
Withington	2.03 (0.87)	
Hope	1.70 (0.82)	F (3, 85)= .79,
Bury	1.94 (0.97)	p = .50 (ns)
Kettering	1.75 (0.93)	
Sex		
Male	2.00 (0.96)	t (87)= 1.00,
Female	1.80 (0.84)	p = .32 (ns)
Profession		
Medical	2.37 (0.96)	t (46)= 3.79,
Nursing	1.61 (0.72)	p = < .0001*

There were no significant differences between the hospital bases and sexes in their perceived need for further training. There was, however, a highly significant difference between the professions on this rating scale. As would be anticipated from the scores on the measure of adequacy of training, nurses scored lower than medics on this scale, expressing more need for further training in working with patients who DSH (t (46) = 3.79, p < .0001).

3.5.3 Summary of DSH Staff Training Scale

- There was a significant difference between medical and nursing staffs' perceived need for further training in working with DSH patients, with nursing staff expressing greater need than medics.

3.6 Analyses of Effect of Sex of Staff on Emotional Responses, Optimism and Helping

The impact of the staff variable of sex on the dependent measures was analysed on each of the 7 point Likert scales measuring emotional response, optimism and helping. This was done using a series of two-factor analyses of variance including vignette as a factor, to account for the fact that staff did not all complete the same vignette.

3.6.1 Sex of staff and Emotional Responses

Means, standard deviations and the results of the ANOVAs examining the effect of sex of staff on the emotional response rating scales for male and female staff on each of the emotional response scales are presented in Table 10. There was a significant main effect for sex of staff on the sympathy measure. Inspection of the means indicates that male staff expressed less sympathy than female staff. Male staff also expressed more irritation and frustration than their female counterparts. There was no significant difference on the pity dimension between male and female staff.

Table 10: Means, standard deviations and effect sizes for sex of staff on the emotional response scales

Emotional Response		Mean (SD)	Test statistic/significance
Irritation**	*Vignette*		*F (3, 84) = .15, p = .93 (ns)*
	Male	2.97 (1.84)	$F(1, 84) = 4.23, p = .04$*
	Female	2.13 (1.13)	
Sympathy	*Vignette*		*F (3, 84) = 1.99, p = .12 (ns)*
	Male	4.24 (1.33)	$F(1, 84) = 5.50, p = .02$*
	Female	4.97 (1.30)	
Pity	*Vignette*		*F (3, 84) = .93, p = .43 (ns)*
	Male	3.28 (1.67)	$F(1, 84) = 2.39, p = .13$
	Female	3.87 (1.51)	
Frustration	*Vignette*		*F (3, 84) = .42, p = .74 (ns)*
	Male	3.90 (1.84)	$F(1, 84) = 6.82, p = .01$*
	Female	2.95 (1.55)	

Note. ** Denotes non-normal distribution.

(The variables of interest are presented in plain text).

3.6.2 Sex of staff and Optimism

Mean/ median scores on the optimism scales for male and female staff are summarised in Table 11, and the results of the analyses examining the sex and personal optimism variables. A two-factor ANOVA indicated that there was a significant main effect for sex on the personal optimism variable, indicating that

male staff expressed less personal optimism than female staff. A Mann-Whitney U test was computed to assess the difference between male and female staff on the optimism for follow-up variable, as this was not normally distributed. This indicated that there was no significant difference between the male and female staff on the optimism for follow-up scale.

Table 11: Mean/ median and effect sizes for sex of staff on optimism scales (effect sizes for vignettes in italics)

Optimism Scale		Mean/ Median	Test Statistic/ Significance
Personal	*Vignette*		*F (3, 84) = 1.34, p = .27 (ns)*
	Male	3.10 (1.63)	F (1, 84) = 4.62, p = .03*
	Female	3.93 (1.58)	
Follow-up**	Male	5 (1 – 7)	z = -1.64, p = .10 (ns)
	Female	5 (1 – 7)	

Note. ** Denotes non-normal distribution.

3.6.3 Sex of staff and Helping Behaviour

Table 12 provides means and standard deviations of helping scores for each sex. A two-factor analysis of variance indicated a significant difference between males and females with males reporting less willingness to help than females.

Table 12: Means, standard deviations and effect size for sex of staff on helping

	Mean (SD)	Test statistic/ significance
Vignette		$F(3, 84) = .96, p = .42$
Male	14.04 (3.61)	$F(1, 83) = 8.39, p = .005$).
Female	16.17 (2.90)	

3.6.4 Summary of Effects of Sex of Staff on Emotional Responses, Optimism and Helping

- Male staff expressed greater irritation and frustration and less sympathy than their female colleagues towards the DSH cases presented in the hypothetical vignettes.
- Male staff were less optimistic about the likelihood of their personal input in A&E facilitating positive change.
- These differences in affect and optimism were reflected in helping behaviour, with male staff reporting less helping behaviour.

3.7 Analyses of Effects of Profession on Emotional Responses, Optimism and Helping

3.7.1 Professional Background and Emotional Responses

The impact of the staff variable of profession on the dependent measures was analysed on each of the 7 point Likert scales measuring emotional response, optimism and helping. This was done using a series of two-factor analyses of variance including vignette as a factor, to account for the fact that staff did not all complete the same vignette. Table 13 outlines means and standard deviations for medical and nursing staff on the emotional response rating scales, and results of ANOVAs

Table 13: Means, standard deviations, and effect sizes for profession on emotional response rating scales

Emotional Response		Mean (SD)	Test statistic/ Significance
Irritation**	*Vignette*		*F (3, 84) = .15, p = .93 (ns)*
	Medical	2.93 (1.78)	$F(1, 84) = 4.36, p = .04$*
	Nursing	2.14 (1.17)	
Sympathy	*Vignette*		*F (3, 84) =1.90, p = .14 (ns)*
	Medical	4.43 (1.19)	$F(1, 84) = 1.79, p = .18$ (ns)
	Nursing	4.88 (1.40)	
Pity	*Vignette*		*F (3, 84) = .91, p = .44 (ns)*
	Medical	3.57 (1.61)	$F(1, 84) = .38, p = .54$ (ns)
	Nursing	3.73 (1.57)	
Frustration	*Vignette*		*F (3, 84) = .40, p = .76 (ns)*
	Medical	3.70 (1.82)	$F(1,84) = 2.71, p = .10$ (ns)
	Nursing	3.03 (1.60)	

Note. ** Denotes non-normal distribution.

A two-factor analysis of variance indicated that there was a significant main effect for profession (medical and nursing staff) on the irritation variable. This suggests that medical staff expressed more irritation than their nursing colleagues. There were no significant differences between the two groups on the other emotional response variables.

3.7.2 Professional Background and Optimism

A two-factor analysis of variance demonstrated that there was a significant main effect for profession on the personal optimism variable, with doctors reporting less personal optimism than the nurses. A Mann-Whitney U test indicated that there was no significant difference between doctors and nurses on the optimism for follow-up measure. Table 14 gives means and standard deviations for medical and nursing staff on the optimism measures, and the results of the analyses.

Table 14: Mean/ median and effect sizes for profession on optimism scales

Optimism		**Mean (SD)/ Median (Range)**	**Test Statistic/ Significance**
Personal	*Vignette*		*F (3, 84) = 1.39, p = .25 (ns)*
	Medical	2.97 (1.52)	F (1, 84) = 8.07, p = .006*
	Nursing	4.02 (1.59)	
Follow-up**	*Vignette*		
	Medical	5 (1 - 6)	z = -1.21, p = .23 (ns)
	Nursing	5 (1 - 7)	

Note. **Denotes non-normal distribution

3.7.3 Professional Background and Helping Behaviour

A two-factor analysis of variance indicated a significant difference between doctors and nurses reported helping behaviour, with doctors reporting less helping behaviour than the nursing staff (F (1, 83) = 8.84, p = .004). (Medical staff mean = 14.07, SD = 3.74), nursing staff mean = 16.19, SD = 2.80).

3.7.4 Summary of Effects of Profession on Emotional Responses, Optimism and Helping

- Medical staff expressed higher levels of irritation towards DSH cases presented in the scenarios, than their nursing colleagues.
- Medical staff were less optimistic about the success of their personal input in A&E, although there were no differences between medics and nurses in their optimism for the success of any follow-up treatment.
- Medical staff reported less helping behaviour than nursing staff.

3.8 Analyses of Effects of Precipitant and Frequency on Attributions, Emotions, Optimism and Helping

Means and standard deviations for the effects of precipitant and frequency on the dependent measures (attributions, emotional responses, optimism and helping) are presented in Table 15. (Means and standard deviations for each of the four groups completing vignettes can be found in Appendix 15).

Table 15: Means for precipitant and frequency (Standard deviation in parenthesis)

	PRECIPITANT		FREQUENCY	
Variable	**Death**	**Financial**	**First**	**Sixth**
Controllability	3.67 (1.52)	4.11 (1.27)	3.87 (1.39)	3.93 (1.44)
Stability of cause	5.26 (1.11)	5.30 (0.89)	5.13 (1.12)	5.43 (0.85)
Stability of outcome	5.19 (1.38)	5.09 (1.44)	4.55 (1.50)	5.73 (1.02)
Internality	3.32 (1.01)	3.78 (1.25)	3.53 (1.24)	3.59 (1.09)
Irritation	2.49 (1.58)	2.33 (1.32)	2.40 (1.45)	2.41 (1.45)
Sympathy	5.00 (1.09)	4.48 (1.52)	4.64 (1.28)	4.82 (1.42)
Pity	3.51 (1.71)	3.83 (1.45)	3.58 (1.50)	3.77 (1.67)
Frustration	3.14 (1.86)	3.37 (1.54)	3.16 (1.68)	3.36 (1.73)
Personal optimism	3.77 (1.57)	3.57 (1.71)	3.78 (1.72)	3.55 (1.56)
Optimism for follow-up	5.19 (1.24)	4.91 (1.33)	5.07 (1.40)	5.02 (1.17)
Helping behaviour	15.88 (3.25)	15.11 (3.29)	15.13 (3.22)	15.86 (3.34)

3.8.1 Attributions

The effects of precipitant and frequency on the four attributional dimensions were examined using a series of 4 two-way ANOVAs. These are presented in Table 16.

Hypotheses 1

"DSH acts perceived as having a more controllable precipitant (i.e. financial debts) will generate higher ratings of controllability than those perceived as having a less controllable precipitant (i.e. death)".

The analyses presented in Table 16 indicate that there was no significant main effect for precipitant on the controllability dimension, (F (1, 85) = 2.18, p = .14). However, there appeared to be a trend of staff rating "death of a close friend" as less controllable. To further explore this trend, the controllability dimension was categorised into low, medium and high (1 – 3 = low, 4 = medium and 5 - 7 = high). A further analysis (Chi-square) was conducted using the three categories to establish if there was any significant difference between death of a close friend and having got into huge financial debts ($x2$ (2) = 4.89, p = .09, test for linear trend (1) = 4.24, p = .04). This suggests that there was a significant trend of higher ratings of controllability being associated with "financial debts" as opposed to "death of a close friend". There also appeared to be a non-significant trend of staff rating financial debts as more internal to the person than the death, (F (1, 83) = 3.67, p = .06). Table 18 gives the results of the analyses.

Table 16: Summary of two-way ANOVAs examining main and interaction effects of precipitant and frequency on attributional dimensions

Variable	Test Statistic/ Significance
Controllability	
Precipitant	$F(1, 85) = 2.18, p = .14$ (ns)
Frequency	$F(1, 85) = .05, p = .82$ (ns)
Precipitant x Frequency	$F(1, 85) = 1.25, p = .27$ (ns)
Stability of cause	
Precipitant	$F(1, 85) = .07, p = .78$ (ns)
Frequency	$F(1, 85) = 1.99, p = .16$ (ns)
Precipitant x Frequency	$F(1, 85) = 1.48, p = .23$ (ns)
Stability of Outcome	
Precipitant	$F(1, 84) = .04, p = .85$ (ns)
Frequency	$F(1, 84) = 18.27, p < .001$*
Precipitant x Frequency	$F(1, 84) = 4.92, p = .03$*
Internality	
Precipitant	$F(1, 83) = 3.62, p = .06$ (ns)
Frequency	$F(1, 83) = .05, p = .82$ (ns)
Precipitant x Frequency	$F(1, 83) = 1.31, p = .28$ (ns)

Hypothesis 2

"Frequent DSH acts will generate higher ratings of stability than an initial presentation".

The results of the two-way ANOVAs for the main effects and interaction effects for precipitant and frequency on the stability dimension can be found in Table 16. There was a highly significant difference between the "first" presentation

and "sixth" presentation with DSH on the stability of outcome dimension, with sixth presentation rated as more stable than the first (F (1, 84) = 18.27, $p <$ .001). However, there were no significant differences between first and sixth presentation on any of the other attributional dimensions. There was a significant interaction effect between precipitant and frequency on the stability of outcome dimension. *Post hoc* analysis revealed that stability was perceived to be greater with the death precipitant than the financial debts, and greater with sixth presentation than first presentation. The other three attributional dimensions failed to demonstrate any significant interaction effects between precipitant and frequency.

3.8.2 Emotional Responses

The main effects and interaction effects of precipitant and frequency on emotional responses, optimism and helping were examined using a series of four-way ANOVAs. As the staff variables of sex and profession were found to have a significant impact on emotional responses, optimism and helping these were accounted for in the following analyses. (Factors = sex, profession, precipitant and frequency).

Frequency and precipitant demonstrated no significant main or interaction effects on emotional responses. There was, however, a non-significant trend of the precipitant of "death" generating more sympathy from staff than that of "financial debts". Table 17 provides the results of the analyses.

Table 17: Summary of ANOVAs examining main and interaction effects of precipitant/ frequency on emotional responses

Emotional Response	Test Statistic/ Significance
Irritation	
Precipitant	$F(1, 83) = .18, p = .67$ (ns)
Frequency	$F(1, 83) = .00, p = .98$ (ns)
Precipitant x Frequency	$F(1, 83) = .61, p = .44$ (ns)
Sex	*$F(1, 83) = 1.69, p = .20$ (ns)*
Profession	*$F(1, 83) = 1.81, p = .18$ (ns)*
Sympathy	
Precipitant	$F(1, 83) = 3.36, p = .07$ (ns)
Frequency	$F(1, 83) = .32, p = .57$ (ns)
Precipitant x Frequency	$F(1, 83) = 1.41, p = .29$ (ns)
Sex	*$F(1, 83) = 3.76, p = .06$ (ns)*
Profession	*$F(1, 83) = .17, p = .69$ (ns)*
Pity	
Precipitant	$F(1, 83) = .88, p = .35$ (ns)
Frequency	$F(1, 83) = .38, p = .54$ (ns)
Precipitant x Frequency	$F(1, 83) = 1.14, p = .29$ (ns)
Sex	*$F(1, 83) = 1.98, p = .16$ (ns)*
Profession	*$F(1, 83) = .00, p = .97$ (ns)*
Frustration	
Precipitant	$F(1, 83) = .33, p = .57$ (ns)
Frequency	$F(1, 83) = .36, p = .55$ (ns)
Precipitant x Frequency	$F(1, 83) = .80, p = .37$ (ns)
Sex	*$F(1, 83) = 4.35, p = .04$**
Profession	*$F(1, 83) = .40, p = .53$ (ns)*

3.8.3 Optimism

A four-way ANOVA was computed to examine the effects of precipitant and frequency on the personal optimism measure. To assess the independent and interaction effects of precipitant and frequency of the optimism for follow-up measure Mann-Whitney U tests and Kruskal-Wallis one-way ANOVA were performed, as this variable was non-normally distributed. The results are summarised in Table 18. The precipitant and frequency variables incorporated in the vignettes appeared to have no significant main or interaction effects on the measures of staff optimism.

Table 18: Summary of analyses examining effects of precipitant and frequency on optimism

Optimism	Test Statistic/ Significance
Personal optimism	
Precipitant	$F(1, 83) = .13, p = .73$ (ns)
Frequency	$F(1, 83) = .19, p = .67$ (ns)
Precipitant x Frequency	$F(1, 83) = 2.69, p = .11$ (ns)
Sex	*$F(1, 83) = 1.19, p = .28$ (ns)*
Profession	*$F(1, 83) = 4.47, p = .04$**
Optimism for follow-up**	
Precipitant	$z = -1.19, p = .23$ (ns)
Frequency	$z = -.55, p = .58$ (ns)
Precipitant x Frequency	$x2(3) = 2.16, p = .54$ (ns)
Helping	
Precipitant	$(F(1, 82) = .85, p = .36$ (ns)
Frequency	$(F(1, 82) = 1.41, p = .24$ (ns)
Precipitant x Frequency	$F(1, 82) = .27, p = .61$ (ns)
Sex	*$F(1, 82) = 3.48, p = .07$ (ns)*
Profession	*$F(1, 82) = 3.91, p = .05$*

*Note.*** Denotes non-normal distribution

3.8.4 Helping Behaviour

The effects of precipitant and frequency on staff helping were examined using four-way ANOVAs. There were no significant main or interaction effects for precipitant and frequency on helping behaviour. Table 18 provides the results of the analyses.

3.8.5 Summary of Effects of Precipitant and Frequency on Emotional Responses, Optimism and Helping

- There was a significant trend of staff rating the death precipitant to be less controllable than the financial debts precipitant.
- There was a non-significant trend of staff rating financial debts precipitant to be more internal to the person than the death precipitant.
- There was a highly significant difference on the stability of outcome dimension with staff rating sixth presentation to be more stable than first. There was, however, no significant difference on the stability of cause dimension between first and sixth presentations.
- There was a non-significant trend of staff expressing greater sympathy towards the death precipitant than to the financial debts.
- There were no significant differences between the two precipitants (death versus financial debts) or between the two frequencies (first versus sixth) on staff optimism and helping measures.
- There was a significant interaction effect between precipitant and frequency on the stability of outcome attributional dimension.
- There were no significant interaction effects between precipitant and frequency on staff affect, optimism and helping.

3.9 Analysis of Relationships between Causal Attributions of Controllability and Emotional Response

Hypothesis 3

"DSH acts perceived by staff to have a more controllable and internal cause will be associated with greater negative affect (i.e. irritation and frustration), than those perceived to have a less controllable and external cause".

A series of Pearson's correlations were calculated to examine the associations between emotional response variables and controllability and internality. The results are provided in Table 19.

Table 19: Correlation of emotional responses and controllability (n = 89) and internality (n = 87)

Emotional Response	Correlation coefficient	Significance
Controllability		
Irritation	.37	$p < .0001$*
Sympathy	-.40	$p < .0001$*
Pity	-.07	$p = .54$ (ns)
Frustration	.33	$p = .002$*
Internality		
Irritation	-.13	$p = .22$ (ns)
Sympathy	.26	$p = .02$*
Pity	.10	$p = .37$ (ns)
Frustration	-.17	$p = .12$ (ns)

The analyses indicated that there was a highly significant association between controllability and sympathy, with lower ratings of controllability for DSH acts being associated with greater sympathy. Higher ratings of controllability for

DSH acts were associated with greater irritation. There was also a significant association between controllability and frustration, with staff expressing more frustration towards DSH acts perceived to be more controllable. On the internality dimension there was a significant relationship between internality and sympathy, indicating that DSH cases perceived to have a more internal cause generated less sympathy.

3.9.1 Analysis of Relationship between Emotional Responses and Helping

Hypothesis 4

"DSH acts generating greater negative affect will be associated with a reduction in helping behaviour".

A series of Pearson's correlations were computed to examine the associations between emotional responses and helping behaviour. The results are provided in Table 20.

Table 20: Correlation of Emotional Response and Helping Behaviour (n = 88)

Emotional Response	Correlation coefficient	Significance
Irritation	-.55	$p < .001$*
Sympathy	.49	$p < .001$*
Pity	.11	$p = .32$ (ns)
Frustration	-.40	$p = < .001$*

There was a highly significant relationship between sympathy and helping behaviour, with greater sympathy being associated with more reported helping behaviour. Higher levels of irritation and frustration were associated with less reported helping behaviour.

3.9.2 Summary of relationships between Controllability, Emotional Responses and Helping

- There were highly significant relationships between controllability and emotional responses. Higher controllability was associated with greater irritation and frustration and less sympathy. Higher internality was associated with less sympathy.
- There was, also, highly significant associations between emotional response and helping behaviour, with higher levels of irritation associated with less reported helping behaviour.

3.10 Analysis of Relationship between Causal Attributions of Stability and Optimism

Hypothesis 5

"DSH acts perceived to have a more stable cause/ outcome will be associated with less optimism than those perceived to have a less stable cause/ outcome".

A series of Pearson's and Spearman's rho correlations were computed to analyse the relationship between stability of cause/ stability of outcome attributional dimensions and staff optimism. The results are summarised in Table 21.

Table 21: Correlations of stability of cause/ outcome with optimism (n = 88)

Variable	Correlation coefficient	Significance
Stability of cause		
Personal optimism	-.05	$p = .63$ (ns)
Follow-up optimism	-.09	$p = .41$ (ns)
Stability of outcome		
Personal optimism	-.33	$p = .002$*
Follow-up optimism	-.06	$p = .61$ (ns)

The results indicated that there were no significant associations between ratings on the stability of cause measure and staff optimism. There were, however, significant associations between stability of outcome and personal optimism, indicating that higher ratings of stability were associated with less personal optimism. There was no significant relationship between stability of outcome and staff optimism for the success of any follow-up treatment offered.

3.10.1 Analysis of Relationship between Optimism and Helping

Hypothesis 6

"Reduced optimism will be associated with decreased helping behaviour".

A Pearson's and Spearman's correlation were computed for optimism and helping behaviour. The results are given in Table 22.

Table 22: Correlation of optimism with helping (n = 88)

Variable	Correlation coefficient	Significance
Personal optimism	.38	$p < .0001$*
Follow-up optimism	.36	$p = .001$*

As predicted, there was a highly significant relationship between optimism and helping behaviour, with greater optimism associated with increased helping behaviour.

3.10.2 Summary of Relationships between Stability, Optimism and Helping

- Higher ratings on the stability of outcome measure are associated with less personal optimism.
- There are highly significant relationships between optimism and helping behaviour, with greater levels of optimism associated with increased help.

3.11 Analysis of Relationships of Attributions, Emotional Responses, and Optimism with Helping

A series of Pearson's and Spearman's rho correlations were calculated to assess the relationships between the attributional dimensions, emotional responses, and optimism variables with helping behaviour. The results for all variables are provided in Table 23. (Correlations between all the dependent measures are presented in Appendix 16).

Table 23: Correlations of attributions, emotions and optimism with helping (n = 89)

Variable	Correlation coefficient	Significance
Controllability	-.37	$p < .001$*
Stability of cause	-.16	$p = .14$ (ns)
Stability of outcome	.06	$p = .59$ (ns)
Internality	.08	$p = .46$ (ns)
Irritation	-.55	$p < .001$*
Sympathy	.49	$p < .001$*
Pity	.11	$p = .32$ (ns)
Frustration	-.40	$p < .001$*
Personal optimism	.38	$p < .001$*
Optimism for follow-up	.36	$p = .001$*

3.11.1 Summary of Significant Correlations with Helping

The analyses indicated that there were significant positive correlations between sympathy, personal optimism and optimism for follow-up with helping behaviour. There were also significant inverse correlations between controllability, irritation and frustration with helping behaviour.

3.11.2 Factors Predicting Helping Behaviour

In order to assess the contribution of variables to the prediction of helping behaviour scores a multiple regression analysis was used. This assessed the contribution of attribution, emotional response and optimism variables to helping behaviour. The controllability attribution dimension, irritation, sympathy, frustration and personal optimism were submitted for stepwise selection, as these were found to have significant independent associations with

helping. The irritation, personal optimism and sympathy variables were selected for the equation and together these accounted for 49% (adjusted R square = .49) of the variance in helping behaviour (F (3, 84) = 28.51, $p < .001$). Summary statistics for the individual variables used in the regression analysis are shown in Table 24.

Table 24: Summary statistics for the multiple regression analysis examining the variance in helping

Attribution variables only entered for stepwise selection:

Summary of stepwise selection

Step	Variable entered	Adjusted *R2*	Standardised coefficient (Beta)	Sig.
1.	Irritation	.36	-.48	$p < .0001$*
2.	Personal optimism	.45	.25	$p = .002$*
3.	Sympathy	.49	.24	$p = .008$*
Variables submitted for entry but not selected:				
-	Controllability		-.05	$p = .59$ (ns)
-	Frustration		.01	$p = .92$ (ns)
-	Optimism for follow-up		.14	$p = .14$ (ns)

As the staff variables of sex and profession were both found to be associated with affect, optimism and helping behaviour, a second multiple regression was conducted to assess whether irritation, personal optimism and sympathy

continued to predict helping when these staff variables were entered into the equation. The variables of sex, profession, irritation, sympathy and personal optimism were submitted for stepwise selection. The variables of irritation, sympathy, and personal optimism accounted for 47% (adjusted R square = .47) of the variance in helping behaviour (F (3, 84) = 26.26, $p < .0001$). Table 25 provides the results of the analysis.

Table 25: Summary statistics for multiple regression analysis for helping adding staff variables of sex and profession

Attribution variables only entered for stepwise selection:

Summary of stepwise selection

Step	Variable entered	Adjusted *R2*	Standardised coefficient (Beta)	Sig.
1.	Irritation	.30	-.44	$p < .0001$*
2.	Personal optimism	.40	.27	$p = .002$*
3.	Sympathy	.47	.28	$p = .002$*
Variables submitted for entry but not selected:				
-	Sex		.07	$p = .38$ (ns)
-	Profession		.08	$p = .32$ (ns)

The results indicate that irritation, personal optimism and sympathy account for 47% of the variance in helping behaviour independent of sex and profession.

3.2 Summary of Results of Experimental Questionnaire

- There was some confirmation of Hypothesis 1 and 2; there was a *trend* of DSH acts with a more controllable precipitant (financial debts) generating higher ratings of controllability than those perceived to have a less controllable precipitant (death). There was confirmation of the hypothesis of frequent DSH acts generating higher ratings of stability on the stability of outcome dimension, but not, however on the stability of cause dimension, that is staff rated the more frequent presentation to be more likely to occur in similar situations in the future.
- Hypothesis 3 was confirmed; DSH acts perceived to have a more controllable and internal cause were associated with greater negative affect.
- There was support for Hypothesis 4; DSH acts generating greater negative affect were associated with a reduction in helping behaviour.
- Hypothesis 5 was partially confirmed; there was a significant association between stability of outcome dimension and personal optimism, with staff expressing greater optimism for less stable acts of DSH. There was, however, no significant relationship between stability of cause dimensions and staff optimism.
- Hypothesis 6 was supported; reduced optimism was associated with decreased helping behaviour.
- The variables of irritation, personal optimism and sympathy account for 47% of the variance in helping behaviour.

3.13 Analysis of Free-Response study

3.13.1 Group Characteristics

There were a total of 20 A&E staff in the sample for this part of the study. Of the total sample, 10% were medical staff and 90% nursing staff. 80% of staff in the study were female and 20% were male. 55% were based at Withington and 45% based at Hope. The mean age of the staff participating was 32.8 (SD = 9.24). The median length of staff experience in A&E was 27 months with a range of 6 to 318.

3.13.2 Understanding of DSH Questionnaire (UDSHQ)

The median score on the UDSHQ was 19.5 with a range of 13 to 32. A Mann Whitney U test was used to compare the means on the UDSHQ for the hospital base variable (z = -1.30, p = .19). There was no significant difference between hospital bases on the UDSHQ.

3.14 Analysis of Differences between "sympathetic" and "unsympathetic" cases

Staff were requested to firstly identify a patient who had recently presented to A&E with DSH whom they felt sympathetic towards, and secondly a patient who had presented whom they felt unsympathetic towards. Of the 20 staff who participated one member of staff was unable to identify a DSH patient who generated sympathy, and three subjects were unable to identify a patient whom they felt unsympathetic towards.

3.14.1 Analysis of Causal Attributions using LACS

Staff were asked to write down the main reason/ cause for the person's DSH for both "sympathetic" and "unsympathetic" cases. Each cause was rated on a binary scale (score 0 or 1) on each of the four attributional dimensions using the modified LACS guidelines, or classified as unrateable. (Appendix 14). From the 20 staff members participating in the free-response study, 68 attributional statements were identified and included for analysis. The mean number of attributional statements for each staff member was 3.4, with a range of 1 to 4. Of these only 5 (7.4%) were unrateable on all four attributional dimensions. A further 17 were unrateable on one of the four attributional dimensions.

3.14.2 Calculation of Proportional Attribution scores

To represent the staff member's direction of causality on each attributional dimension, a Proportional Attribution (PA) score was calculated. The PA score was calculated by summing the causes scored 1, and dividing this by the sum of scores scored 1 or 0. The score had a range of 0 to 1; the higher the score, the greater the proportion of scores equal to 1. For example, a high score on the controllability dimension indicated a tendency for the staff member to rate causes as controllable by the patient.

LACS ratings indicated that 12 (60%) of the "sympathetic" cases were rated as totally uncontrollable by staff, (i.e a score of 0) compared with only 3 (15%) of the "unsympathetic" cases. On the stability of cause dimension, 5 (25%) of the "sympathetic" cases were rated as totally unstable, compared with only 2 (10%) of the "unsympathetic" cases. 11 (55%) of the "sympathetic" cases were rated as having an unstable outcome as compared to 1 (5%) of the "unsympathetic" cases. On the dimension of internality/ externality 9 (45%) of the "sympathetic" cases were rated by staff as totally internal to the patient, as compared to 16 (80%) of the "unsympathetic" cases.

3.14.3 Correlations of ASQ Attributional Dimensions with LACS

A series of Spearman's rho correlations were calculated to examine the relationships between the four attributional dimensions on the ASQ and LACS. These were computed for both the "sympathetic" and "unsympathetic" cases. For the "sympathetic" cases the correlation coefficients were as follows: controllability, -.19, p = .47; stability of cause, .44, p = .07; stability of outcome, .75, $p < .001$; internality, .61, $p = .01$. For the "unsympathetic" cases the correlations were as follows: controllability, .08, p = .76; stability of cause, .63, $p = .008$; stability of outcome, .61, $p = .009$; internality, .13, $p = .61$). The analyses indicated that for the "sympathetic" cases there were significant correlations between the ASQ and LACS on the stability of outcome and internality dimensions. There was a non-significant trend of a positive correlation on the stability of cause dimension. For the "unsympathetic" cases there were significant correlations between the ASQ and LACS on the stability of cause and stability of outcome dimensions

3.15 ASQ Causal Attributions

Table 26 gives median scores on the ASQ attributional dimensions, emotional responses, optimism and helping behaviour scales for both sympathetic and unsympathetic cases.

Table 26: Median scores on ASQ attributional dimensions, emotional responses, optimism and helping scales for sympathetic and unsympathetic cases (range in parenthesis)

Variable	Sympathetic	Unsympathetic
Controllability	3 (1 – 5)	6 (1 – 7)
Stability of cause	5 (1 – 7)	6 (3 – 7)
Stability of outcome	4 (1 – 7)	7 (4 – 7)
Internality	4 (1 – 7)	2 (1 – 4)
Irritation	1 (1 – 4)	5 (2 – 7)
Sympathy	6 (1 – 7)	2 (1 – 6)
Pity	5 (2 – 7)	2 (1 – 7)
Frustration	3 (1 – 7)	6 (2 – 7)
Personal optimism	3 (1 – 7)	1 (1 – 6)
Optimism for follow-up	5 (2 – 7)	2 (1 – 5)
Helping behaviour	17 (7 – 21)	11 (7 – 19)

Note. Higher scores on this measure denote lower internality.

Hypothesis 1

"Staff will be less sympathetic towards more controllable, more stable, more internal acts of DSH".

A series of Wilcoxon tests were computed to examine the differences between the ratings of the "sympathetic" and "unsympathetic" on the attributions, emotional response, optimism and helping scales. For the analysis of causal attributions both ASQ and LACS ratings were used in separate analyses.

3.15.1 Controllability

There was a significant difference in ratings of controllability between the "sympathetic" and "sympathetic" cases, with staff rating the causes of DSH in the "unsympathetic" cases to be more controllable (z = -2.99, p = .003). This was corroborated by repeating the analysis using the LACS dimension of controllability (z = -2.51, p = .012).

3.15.2 Stability of Cause

There was a significant difference between ratings on the stability of cause dimension, with staff rating stability of cause as higher in the "unsympathetic" cases (z = -2.36, p = .018). However, this result was not borne out when the analysis was repeated using the LACS dimension of stability of cause (z = -1.34, p = .18).

3.15.3 Stability of Outcome

A significant difference was found between ratings on the stability of outcome dimension, with ratings being higher in the "unsympathetic" description (z = -3.03, p = .002). Again, this was corroborated by analysis using the LACS dimension of stability of outcome (z = -2.88, p = .004).

3.15.4 Internality/ Externality

There was a significant difference between the sympathetic and unsympathetic cases on this dimension, with staff rating the cause of the "unsympathetic" cases to be more internal (z = -2.77, p = .005). Repeating the analysis using the LACS dimension of internality provided further support of this finding (z = -2.06, p = .039).

3.16 Emotional Responses, Optimism and Helping

Hypothesis 2

"Staff will express more positive emotional responses, greater optimism and helping behaviour towards DSH patients generating more sympathy".

3.16.1 Emotional Response

A series of Wilcoxon tests were computed and indicated that there was a significant difference between the "sympathetic" and the "unsympathetic" cases in the levels of irritation, pity and frustration expressed, with the unsympathetic generating greater irritation and frustration, and less pity than the sympathetic cases. Table 27 provides the results of the analyses.

Table 27: Results of analyses comparing sympathetic and unsympathetic cases on the emotional response rating scales

Emotional Response	Test Statistic/ Significance
Irritation	(z = -3.44, p = .001)*
Pity	(z = -2.59, p = .01)*
Frustration	(z = -3.23, p = .001)*

3.16.2 Optimism

There was a significant difference between the "sympathetic" and "unsympathetic" in the amount of personal optimism, with staff having higher levels evident in the former (z = -2.25, p = .024). This finding was corroborated on the optimism for follow-up measure, with more optimism expressed towards the "sympathetic" cases (z = -3.01, p = .003).

3.16.3 Helping Behaviour

A highly significant difference was found between the ratings of help reported for the sympathetic and unsympathetic cases, with staff reporting greater helping behaviour towards the sympathetic cases ($z = -3.24$, $p = .001$).

3.16.4 Summary of Differences between sympathetic and unsympathetic cases

To account for the effects of repeated testing using Wilcoxon tests, the significance level will be adjusted to $p < .01$ when interpreting the results, as opposed to the conventional .05 level.

- Staff rated the unsympathetic cases to have more controllable causes than the sympathetic cases.
- Unsympathetic cases were rated as more stable on the stability of outcome dimension than the sympathetic cases.
- Unsympathetic cases rates as more internal to the patient than the sympathetic cases.
- Staff expressed greater irritation and frustration towards unsympathetic cases.
- Staff were more optimistic towards the sympathetic cases in terms of their own personal input and follow-up being successful.
- Staff reported more helping behaviour towards the sympathetic cases.

3.17 Analysis of Relationships between Causal Attributions of Controllability and Emotional Responses

Hypothesis 3

"DSH acts perceived to have a more controllable cause will be associated with greater negative affect than those perceived to have a less controllable cause".

To test this hypothesis Spearman's rho correlations were computed for the "sympathetic" cases. A separate correlational analysis was undertaken for the "unsympathetic" cases. Emotional response scores were correlated with both ASQ and LACS controllability scores. Table 28 gives correlation coefficients for controllability and emotional response for both "sympathetic" and "unsympathetic" cases.

Table 28: Correlations of Controllability with Emotional Response

EMOTIONAL RESPONSE		CONTROLLABILITY (ASQ)	CONTROLLABILITY (LACS)
Irritation	Sympathetic	n = 19, .53, p = .02*	n = 17, -.15, p = .56 (ns)
	Unsympathetic	n = 17, .13, p = .63 (ns)	n = 17, -.03, p = .91 (ns)
Sympathy	Sympathetic	n = 19, -.48, p = .04*	n = 17, .12, p = .65 (ns)
	Unsympathetic	n = 17, .09, p = .73 (ns)	n = 17, .56, p = .02*
Pity	Sympathetic	n = 19, -.07, p = .78 (ns)	n = 17, -.07, p = .78 (ns)
	Unsympathetic	n = 17, -.55, p = .02*	n = 17, -.36, p = .16 (ns)
Frustration	Sympathetic	n = 19, .19, p = .44 (ns)	n = 17, -.19, p = .46 (ns)
	Unsympathetic	n = 17, -.26, p = .31 (ns)	n = 17, -.20, p = .44 (ns)

3.17.1 ASQ/ LACS Controllability and Emotional Response for Sympathetic cases

A Spearman's correlation indicated that there was a significant correlation between controllability, as measured by the ASQ, and emotional response, with higher ratings of controllability being associated with greater irritation (n = 19, .53, p = .02), and lower ratings of controllability being associated with greater sympathy (n = 19, -.48, p = .04). There were no significant relationships between the responses of pity and frustration with controllability for the "sympathetic" cases. LACS ratings of controllability were not significantly associated with the emotional responses of irritation, sympathy, pity and frustration.

3.17.2 ASQ/ LACS Controllability and Emotional Response for unsympathetic cases

There was a significant association between ASQ controllability and pity, with staff expressing less pity towards DSH acts that they perceived to be more controllable. There were no significant relationships between any of the other emotional responses and controllability. On the LACS attributional dimensions, there were no significant relationships between controllability and emotional response, except for a contradictory finding of higher ratings of controllability associated with more sympathy.

3.17.3 Summary of Relationships between Controllability and Emotional Response

- There appears to be some support for the hypothesis that more DSH acts perceived to have a more controllable cause are associated with greater negative affect. However, this finding is not corroborated by the LACS ratings, which could be explained by the lack of correlation between the ASQ and LACS for the controllability dimension.

3.18 Analysis of Relationship between Emotional Response and Helping

Hypothesis 4

"DSH acts generating greater negative affect will be associated with a reduction in helping behaviour".

A series of Spearman's correlations were computed to assess the association between emotional responses and helping behaviour for both "sympathetic" and "unsympathetic" cases. Table 29 gives correlation coefficients for emotional response and helping behaviour for both sympathetic and unsympathetic cases.

Table 29: Correlation of Emotional Responses with Helping Behaviour

Emotional Response		Helping Behaviour
Irritation	Sympathetic	n = 19, -.46, $p < .05$*
	Unsympathetic	n = 17, -.22, $p = .40$ (ns)
Sympathy	Sympathetic	n = 19, .62, $p = .005$*
	Unsympathetic	n = 17, .41, $p = .10$ (ns)
Pity	Sympathetic	n = 19, -.02, $p = .94$ (ns)
	Unsympathetic	n = 17, -.24, $p = .36$ (ns)
Frustration	Sympathetic	n = 19, .03, $p = .89$ (ns)
	Unsympathetic	n = 17, -.04, $p = .87$ (ns)

3.18.1 Sympathetic cases

There was a significant relationship between a positive emotional response, that is sympathy, and helping behaviour, with greater sympathy associated with greater helping behaviour. As predicted, there was also a significant association between irritation and helping behaviour with greater irritation associated with less helping behaviour. There were no significant associations between either pity or frustration with helping behaviour.

3.18.2 Unsympathetic cases

These findings were not corroborated for the "unsympathetic" cases, and there were found to be no significant associations between any of the four emotional responses and helping behaviour.

3.18.3 Summary of Relationship between Emotional Response and Helping

- There is support for the hypothesis that DSH acts generating greater negative affect are associated with a reduction in helping behaviour. However, this was provided by the sympathetic cases, and the results were not borne out in the analysis of the unsympathetic cases.

3.19Analysis of Relationships between Causal Attributions of Stability and Optimism

Hypothesis 5

"More stable causal attributions will be associated with reduced optimism".

To test this hypothesis a series of Spearman's rho correlations were computed for both the "sympathetic" and "unsympathetic" cases. Optimism scores were correlated with both ASQ stability of cause/ stability of outcome and LACS ratings on these dimensions. Table 30 provides correlation coefficients for both "sympathetic" and "unsympathetic" cases.

Table 30: Correlations of stability of cause/ stability of outcome with optimism

OPTIMISM		STABILITY OF CAUSE (ASQ)	STABILITY OF CAUSE (LACS)	STABILITY OF OUTCOME (ASQ)	STABILITY OF OUTCOME (LACS)
Personal optimism	Sympathetic	n = 19, .02, p = .94 (ns)	n = 17, -.47, p = .06 (ns)	n = 19, -.26, p = .29 (ns)	n = 19, -.42, p = .08 (ns)
	Unsympathetic	n = 17, -.58, p = .01*	n = 16, -.37, p = .16 (ns)	n = 17, -.64, p = .006*	n = 17, -.31, p = .23 (ns)
Optimism for follow-up	Sympathetic	n = 19, -.48, p = .04*	n = 17, -.70, p = .002*	n = 19, -.75, p < .001*	n = 19, - .74, p < .001*
	Unsympathetic	n = 17, -.68, p = .003*	n = 16, -.49, p = .05	n = 17, -.48, p = .06 (ns)	n = 17, -.21, p = .42 (ns)

3.19.1 ASQ Stability of Cause/ Outcome and Optimism for sympathetic cases

A Spearman's correlation indicated significant relationship between stability of cause and optimism for follow-up, with higher ratings of stability being associated with less optimism for follow-up being successful. However, there was no significant association between stability of cause and personal optimism. There was also a significant association between the stability of outcome dimension and optimism for follow-up, with higher ratings of stability being associated with less optimism. There was no significant relationship between stability of outcome and personal optimism.

3.19.2 LACS Stability of Cause/ Outcome and Optimism for sympathetic cases

The LACS stability of cause dimension was also significantly associated with optimism for follow-up, with staff expressing more optimism towards less stable acts of DSH. There was a non-significant trend of more stable ratings of cause being associated with less personal optimism. There was a highly significant association between stability of outcome and optimism for follow-up, with staff being less optimistic towards more stable acts of DSH. There was a non-significant trend of more stable ratings of outcome being associated with less personal optimism.

3.19.3 ASQ Stability of Cause/ Outcome and Optimism for unsympathetic cases

There were highly significant relationships between stability of cause and personal optimism and optimism for follow-up, with more stable acts associated with less staff optimism. There was a significant relationship between stability of outcome and personal optimism, with staff expressing more optimism

towards less stable DSH acts. There was also a non-significant trend of association between stability of outcome and optimism for follow-up.

3.19.4 LACS Stability of Cause/ Outcome and Optimism for unsympathetic cases

There was no significant relationship between stability of cause and staff personal optimism. There was, however, a non-significant trend of an association between stability of cause and optimism for follow-up, with staff expressing less optimism towards more stable acts of DSH. There were no significant relationships between stability of outcome and personal optimism or optimism for follow-up for the unsympathetic cases.

3.19.5 Summary of Relationship between Stability and Optimism

- For the sympathetic cases there were significant inverse correlations for ASQ and LACS stability of cause/ outcome and optimism for follow-up. There was a non-significant trend of lower ratings on LACS stability of cause/ outcome dimensions being associated with more personal optimism.
- For the unsympathetic cases there were significant associations between ASQ stability of cause/ outcome and personal optimism. There was a non-significant trend of higher ratings of stability of outcome being associated with less optimism for follow-up. These findings were not corroborated by the ratings on the LACS stability dimensions.

3.20 Analysis of Relationship between Optimism and Helping

Hypothesis 6

"Reduced optimism will be associated with decreased helping behaviour".

A series of Spearman's correlations were computed to examine the relationships between personal optimism and optimism for follow-up with helping behaviour. Table 31 provides the correlation coefficients.

Table 31: Correlations of Optimism with Helping

Optimism Scale		Helping Behaviour
Personal Optimism	Sympathetic	n = 19, .38, p = .11 (ns)
	Unsympathetic	n = 17, .29, p = .26 (ns)
Optimism for follow-up	Sympathetic	n = 19, .50, p = .03*
	Unsympathetic	n = 17, .26, p = .31 (ns)

3.20.1 Sympathetic cases

A Spearman's indicated that there was a significant relationship between optimism and helping behaviour, with greater optimism for successful follow-up being associated with more helping behaviour. Although, there was no significant association found between personal optimism and helping behaviour.

3.20.2 Unsympathetic cases

There were no significant associations between optimism and helping behaviour for the "unsympathetic" cases.

3.20.3 Summary of Results for Free- Response Study

- There was support for Hypothesis 1 and 2: staff were less sympathetic towards more controllable, more stable and more internal acts of DSH; staff expressed more positive emotional responses, greater optimism and helping behaviour towards patients generating more sympathy.

- Hypothesis 3 was confirmed by analysis of the sympathetic cases; more controllable causal attributions of DSH acts were associated with greater negative affect.
- Hypothesis 4 was also confirmed by analysis of the sympathetic cases; DSH acts generating greater negative affect was associated with a reduction in helping behaviour.
- Support was found for Hypothesis 5; higher ratings of stability were associated with reduced optimism.
- Hypothesis 6 was partially confirmed by analysis of the sympathetic cases; there was a significant relationship between optimism for follow-up and helping behaviour, with greater optimism associated with increased helping behaviour.

CHAPTER 4
DISCUSSION

4.0 DISCUSSION

The research aims and objectives will be reviewed. A summary of the results for both the hypothetical scenarios experimental questionnaire, and analysis of staffs' real life encounters with patients who DSH will be discussed. Reference to previous research will be included in the discussion, and methodological limitations of both parts of the study will be highlighted. Implications of the results for clinical practice and staff training will be discussed and suggestions will be made for further research.

4.1 Review of Aims

- To examine and compare the causal attributions of A&E staff for deliberate self- harm acts in both hypothetical and real-life situations.

- To assess the impact of precipitants (death of a close friend as opposed to having huge financial debts) and the frequency of occurrence of self- harm (first presentation at A&E as opposed to sixth) on staff causal attributions for DSH in hypothetical situations.

- To investigate the relationships between staffs' causal attributions, emotional responses, optimism and helping behaviour.

- To assess the impact of staff factors such as sex and professional background, on emotional responses, optimism and helping behaviours.

- To examine A&E staffs' empathy towards and understanding of people who present with DSH, and their perceived need for further training in this area.

4.2 Review of Objectives

- To present staff with a hypothetical scenario to examine the nature of staff causal attributions, emotional responses, optimism for change and helping behaviour. Contextual factors will be experimentally manipulated to examine the impact on the dependent measures.

- To compare these findings with an analysis of spontaneous attributions of staff by developing a method for free reporting of real-life cases and analysis of narrative responses.

- To apply Weiner's (1980, 1986) attributional model of helping to the treatment of patients presenting with deliberate self-harm to Accident and Emergency departments.

All the aims and objectives were achieved.

4.3 Main Results of Experimental Questionnaire Study

4.3.1 Staff Factors

4.3.1.1 UDSHQ scores

These scores of staff on the Understanding of Deliberate self-Harm Questionnaire (UDSHQ) were comparable with scores obtained in previous research using the Understanding of Suicide Attempt Scale (USP) with general nursing staff (Samuelsson, Sunbring, Winell & Asberg, 1997). This suggests that the sample is representative of general nursing staff. There were no significant differences in staff empathy towards DSH between hospital bases, male and female staff, and medical and nursing staff. There was no evidence of an association between staff's length of experience and scores on the UDSHQ. There was, however, evidence of older A&E staff having greater empathy than younger staff towards patients who DSH. This corroborates the findings of

previous research suggesting that older and more experienced nurses hold more positive attitudes towards DSH than younger or less experienced nurses, (McLaughlin, 1994; Anderson, 1997; Samuelsson, Asberg & Gustavsson,1997).

4.3.1.2 Staff Training in DSH

The results highlighted that nurses' perceived need for further training in the area of DSH was significantly greater than their medical colleagues. This supports the finding of Samuelson, Winnel & Asberg (1997) and McLaughlin, (1994). This is an important finding as it may suggest that staffs' negative attitudes towards DSH may be a consequence of their uncertainty in this area. One staff member, who participated in the free-response study highlighted her avoidance of addressing issues surrounding DSH with patients, due to uncertainty regarding the appropriate manner in which to treat and manage this group of patients. Other staff appeared to be less insightful to the complex nature of DSH. One particular patient was described by as "just very dramatic, crying and moaning generally about everything in her life.... but she doesn't appear to do anything to change it. Whether it's just a learnt behaviour by now I couldn't say really".

4.3.1.3 Sex of staff

There were significant group differences between male and female staff on the emotional response rating scales. Male staff were less sympathetic and expressed more irritation and frustration towards patients in the vignettes who DSH than their female counterparts. This finding supports that of Samuelsson, Asberg & Gustavsson (1997), who reported that female staff tended to be more sympathetic towards DSH than their male counterparts. Male staff were also less optimistic about their personal input being successful, and reported significantly less helping behaviour than female staff.

4.3.1.4 Professional Background

The analyses demonstrated that medical staff expressed higher levels of irritation towards patients who DSH and less personal optimism than nursing staff for their input in A&E being successful. There was also a difference between medical and nursing staff with regard to reported helping behaviour. Medical staff reported less helping behaviour than nursing staff. This finding supports that of Ramon (1980) who reported that general physicians expressed more negative views towards DSH patients than nursing staff.

4.4 Hypotheses testing

The results provided some support to the manipulations of precipitant for DSH act affecting the attributional dimension of controllability. There was, however, a significant linear trend of the "controllable" precipitant (financial debts) generating higher ratings of controllability. There was, also, a non-significant trend of staff rating the financial debts precipitant to be more internal to the person than the death precipitant.

With regard to the second manipulation of frequency of attendance at A&E with DSH, this did not appear to impact on stability of cause ratings. In other words, the number of times the person had previously attended A&E with DSH did not influence their judgements about how likely the factors precipitating the overdose would continue to be present in the future. Although, there was support for the variable of frequency of occurrence of DSH impacting on the stability of outcome ratings, with higher ratings of stability associated with more frequent occurrences of DSH acts. In other words, the more frequent the presentation with DSH, the more likely staff were to predict that the person would repeat DSH in similar situations in the future.

There was support for the third hypothesis that predicted an association between more controllable DSH acts and greater negative affect. There was also

evidence for the fourth hypothesis, indicating a significant relationship between higher levels of irritation and a reduction in staff helping behaviour.

With regard to the fifth hypothesis, the analyses demonstrated a relationship between more stable attributions of outcome and staffs' optimism for the success of their personal input. There was, however, no association found between stability and staffs' optimism for the success of follow-up treatment. Finally, there was a significant relationship between greater staff optimism and an increase in reported helping behaviour.

4.4.1 Predictors of Helping Behaviour

There was evidence to support that staffs' level of irritation was the most significant factor associated with helping behaviour, followed by personal optimism and sympathy. This was also the case when staff factors, such as the sex and profession of staff, which proved to be significant in the univariate analyses, were controlled for.

4.5 Relationships between Attributions, Emotional Responses, Optimism and Helping

4.5.1 Effects of Precipitant and Frequency

Manipulations of precipitant and frequency appeared to have an impact on staffs' causal attributions for DSH. This is clearly an important finding when reference is made to more controllable and stable causal attributions being associated with staff affect, optimism and helping behaviour. It suggests that contextual factors surrounding the patient who DSH may have consequences in their contact with health professionals, and that patients may receive a variety of responses which are dependant on their presentations.

4.5.2 Controllability and Emotional Responses

The present study confirmed that the greater the staff member's attribution of control, the greater the negative affect, that is, irritation. Conversely, the lower the ratings of controllability, the greater the positive affect. This supports Weiner's (1980) model of helping. It also provides confirmation of Dagnan *et. al.* (1998) and Stanley & Standen (2000). However, Sharrock *et. al.* (1990) did not confirm this relationship.

4.5.3 Stability and Optimism

The present study failed to find consistent associations between the two stability attributional dimensions and personal optimism and optimism for follow-up. The only significant relationship was between the stability of outcome dimension and staff optimism for their personal input. As the variable of frequency of DSH had a significant effect on the stability of outcome dimension, it can be concluded that the more frequently a patient presents at A&E with DSH, the less optimistic staff are about the effectiveness of their personal intervention in A&E. However, attributions of stability do not seem to significantly correlate with staffs' optimism for the success of follow-up treatment that may be offered to the patient. One possible explanation for the stability of cause dimension failing to correlate with the optimism measures may be that this dimension was not successfully manipulated in the hypothetical scenarios. In retrospect, this was difficult as little information was provided concerning an actual cause, merely a precipitant or possible "trigger" in the form of a death or financial debts. No information was provided regarding a psychiatric diagnosis, which may have been regarded as a more stable cause or a mood state, which may have been perceived as a transient or less stable cause (Stratton *et. al.* 1986).

4.5.4 Emotional Responses, Optimism and Helping

The findings of the present study indicated that both positive and negative affect and optimism were correlated with helping behaviour in the direction predicted by Weiner's model. This contrasts to previous research examining the attributional model of helping, (Weiner (1980, 1986). These have either confirmed a mediational role for optimism in helping behaviour, but not for affective judgements, for example, Sharrock *et. al.*, (1990), or a mediational role of negative affect for helping, but found no significant association between positive affect and helping, for example, Dagnan, et al., (1998). By contrast, Stanley and Standen, (2000) found a mediational role for positive affect, but not for negative affect.

The finding of staff optimism being associated with helping behaviour supports the conclusions of Sharrock *et. al.*, (1990), whose findings did not support an association between affect and helping. Similarly, Dagnan et al. (1998) failed to find a relationship between positive affect and helping, although a relationship was found between negative affect and helping. Both these studies were conducted with residential care staff, the former in unit for mentally disordered offender, the latter in residential unit for people with learning disabilities. Sharrock et. al (1990) suggested that staff may to some extent habituate to problem behaviour, so that affective responses no longer provide the levels of motivation to help presumed by Weiner (1980). Clearly, this is more likely to be a possibility in residential settings where staff have contact with clients on a daily basis compared to A&E where staff may have relatively intermittent contact with DSH patients. Hence, although both the Sharrock *et. al.*, (1990) and the Dagnan *et. al.*, (1998) studies lend some support to Weiner's (1980) model, neither confirms a mediational role for positive affect which is fundamental to Weiner's theory. A methodological issue concerning both studies is the effect of behavioural topography on attributions. The study by Sharrock *et. al.*, (1990) elicited carers rating on one patient, and the Dagnan *et. al.* (1998) used six simple scenarios of challenging behaviour. Neither of these studies developed a factorial approach to topography, which Stanley and

Standen (2000) argue is essential for an adequate test of Weiner's model. Stanley and Standen (2000) propose that in order to study challenging behaviour, researchers need to be specific about the form of challenging behaviour, rather than consolidating them into one group, which may result in concealment of possible differences. The fact that the present study incorporated a factorial approach, and was very specific about the type of challenging behaviour under investigation, could explain the reason for the positive findings.

4.6 Summary of Findings of Experimental Questionnaire Study

Weiner (1980, 1986) predicted that his model of helping behaviour, "would generalise over a variety of helping situations". How well does Weiner's model apply in the context of A&E staffs' contacts with DSH patients? The present study clearly identifies relationships between attributional dimensions, emotional responses, optimism and helping. The greater the staff member's attribution of control and negative affect, the less propensity to help. Conversely, less controllability is associated with positive affect and increased helping behaviour. As predicted by Weiner, there was support for the mediational role of the causal attributions of controllability and stability with positive affect and optimism respectively. There was some evidence of precipitants to DSH and frequency of presentation at A&E with DSH influencing staffs' causal attributions; staff rated financial debts as more controllable than a death, and sixth presentations as more stable than an initial presentation.

4.7 Main Results of Free Response Study

4.7.1 Hypotheses Testing

There was support for Hypothesis 1, as there was evidence of staff rating the "unsympathetic" cases to be more controllable, stable and internal than the "sympathetic" cases. As predicted in Hypothesis 2 they also expressed more

irritation and frustration, less optimism and less helping behaviour, towards DSH patients generating less sympathy.

There was also evidence of associations between controllability and emotional response; staff expressed more irritation towards DSH acts that they perceived to be more controllable. However, this finding was not replicated with the "unsympathetic" cases.

There was also support for the hypothesis predicting that DSH acts generating greater negative affect would be associated with a reduction in helping behaviour. Again, this finding was not corroborated by analysis of the unsympathetic cases.

There was support for Hypothesis 5 when analysing the sympathetic cases, in that there were significant inverse correlations for both ASQ and LACS stability of cause and outcome and optimism for follow-up. There was a non-significant trend of lower ratings on the LACS stability of cause/ outcome dimensions being associated with more personal optimism. With regard to the unsympathetic cases, there were highly significant relationships between ASQ stability of cause and personal optimism and optimism for follow-up, with higher ratings of stability associated with less staff optimism. There was also support for a relationship between ASQ stability of outcome and personal optimism, with staff expressing greater optimism towards less stable DSH acts. There was also evidence of a non-significant trend of association between higher ratings of ASQ stability of outcome and reduced optimism for follow-up. There were no significant relationships between LACS stability of outcome and personal optimism or optimism for follow-up for the unsympathetic cases.

Hypothesis 6 was supported by analysis of the sympathetic cases; there was a significant association between optimism for follow-up and helping behaviour, with greater optimism associated with increased helping behaviour. However, this finding was not corroborated by the unsympathetic cases. There were no

significant relationships found between personal optimism and helping behaviour for either the sympathetic or unsympathetic cases.

4.8 Summary of Findings from Free-Response Study

In summary, there were marked differences between the cases staff identified as generating sympathy and those they felt unsympathetic towards. These differences were evident in staffs' causal attributions for the DSH, their affect, optimism and helping behaviour towards the person. Interestingly, there were significant associations between attributions of controllability and affect, affect and helping and optimism and helping, but these were not evident in the analysis of the unsympathetic cases. The only hypothesis confirmed by the analysis of the unsympathetic cases was the relationship between attributions of stability and staff optimism.

This failure to find relationships between affect, optimism and helping for the unsympathetic cases may suggest that although Weiner's theory may be applicable to hypothetical situations or situations in which staff have positive emotions towards the patient, it may not apply so well to situations in which patients generate irritation. In Weiner's model anger leads to withholding of help. For paid professionals the option not to offer help is constrained; thus for paid carers anger may affect behaviour differently (Dagnan *et. al.* 1998). Also, a high proportion of the patients who generated negative affect were patients who repeatedly self-harmed and there may be the idea that helping, in the form of active contact may serve to reinforce the behaviour. Another consideration is that Weiner's attributional model of helping may only apply in situations viewed as *important* for the individual staff member. An early version of the ASQ asked subjects to rate how important the situation would be if it happened to them. These ratings were included in the light of the possibility that the proposed relationship of explanatory style would only occur for events viewed as important by the individual, or more strongly for important events than unimportant events (Peterson *et. al.* 1982). In relation to the present study, the lack of correspondence of the unsympathetic cases with the attributional model

of helping may be explained by staff not viewing the outcome in the unsympathetic cases as important as in the sympathetic cases.

The one main area of difference between the conclusions from the experimental questionnaire and the free-responses is in respect to the relationship between stability of causal attributions and staff optimism. In the free-response study, there was evidence for significant correlations between stability of cause and outcome and personal optimism and optimism for follow-up. However, in questionnaire responses to the hypothetical scenarios, the only significant inverse correlation was between stability of *outcome* and personal optimism. This difference is possible attributable to the hypothetical scenarios failing to generate optimism, in the same way as real life clinical cases. It would seem that in a clinical setting attributions of stability significantly impact on optimism for changing the behaviour.

4.9 Methodological Considerations for Experimental Questionnaire Study

4.9.1 Group characteristics

A total of 60 female and 29 male staff participated in the study, 59 nursing and 30 junior medical staff. There were very similar response rates between nursing and medical staff, which suggests that the sample was reasonably representative of the total A&E staff group.

One of the fundamental difficulties in interpreting the data of this study lies with the group characteristics. Although, the group of participants was representative of A&E staff groups used in previous studies, in terms of demographics, there are difficulties with the recruitment procedure which may have biased the sample. DSH is obviously an extremely sensitive topic. There is a possibility that the sample was biased in that it was self-selected, and there was no analysis of non-respondents. It is possible that the non-respondents were more negative towards DSH patients than their colleagues who agreed to participate.

4.9.2 Design

One of the other main difficulties with interpretation is in relation to the between subjects design. This was selected in an attempt to eliminate a transparency effect and "hypothesis guessing" by participants. Had each member of staff been asked to consider all four hypothetical scenarios, the manipulations would have been extremely obvious, as the remainder of information was held constant. However, the disadvantage is that it is more difficult to draw conclusions about whether differences between vignettes on the dependent measures (affect, optimism and helping) were attributable to the contextual information manipulated in the scenarios, or due to individual staff factors. A repeated measures design would have allowed each subject to act as their own control.

4.9.3 Measures

4.9.3.1 Hypothetical scenarios

The hypothetical scenarios provided very limited information for staff to make their causal judgements, although it is probably a realistic representation of the amount of information staff in A&E may have access to concerning patients who present with DSH in the clinical setting. Clearly, when staff encounter people in clinical settings, a range of contextual factors will also affect their behaviour, for example, severity and functionality of DSH, and features of the person, such as age and gender (Dagnan *et. al.* 1998). Another important influence may be the manner in which the patient behaves towards the staff in the A&E department.

4.9.3.2 Attributional Style Questionnaire (ASQ)

The results of the ASQ must be considered with caution, as the questionnaire is not supported with test-retest reliability data in relation to assessing A&E staffs' causal attributions of DSH. However, it was based very closely on the original ASQ, which has been shown extensively to be a valid and reliable instrument for measuring causal attributions (Peterson *et. al.,* 1982). There was a significant correlation between stability of cause and stability of outcome dimensions, but not between the other attributional dimensions. This indicates that the attributional dimensions had some degree of independence, and that they were not tapping the same causal beliefs. There is also the difficulty of "forced" attributional ratings, which provides no opportunity for the member of staff to negotiate the meaning with the researcher.

4.9.3.3 Helping Behaviour Scale

There may be other factors that motivate staff helping behaviour that were not considered in the present study. For example, there is the possibility that the high number of staff suggesting that they would instigate a referral to another service for the person, is a consequence of negative attitudes towards DSH patients, as opposed to a desire to help the individual. In view of staffs' reported need for further training in the area of DSH, there is also the suggestion that many staff feel that they do not have the appropriate skills in dealing with people who deliberately self-harm.

Measurement of helping in this study is concerned with staffs' *willingness* to put extra effort into helping. This is used instead of identifying particular interventions or helping behaviours. These measures were used both to replicate Sharrock *et. al.* (1990) and Dagnan *et. al.* (1998), in an attempt to avoid staffs' helping responses being influenced by the impact of particular protocols developed in a service. There are difficulties with the development of a valid measure of helping in a clinical setting (Dagnan *et. al.*, (1998). In the free-response study a few staff commented on the difficulty of being able to

spend time with DSH patients due to the many other competing demands on their time, and the priorities of A&E department being based on clinical need. There is the possibility that the culture of A&E departments, as opposed to that of any other clinical setting, may significantly impact on staffs' individual attitudes. A number of subjects who were relatively new to working in A&E commented on the pressurised, stressful working environment. As one member of staff commented. "The job makes you hard, and you're likely to become less sensitive. Heart rates, blood pressures are the priority, talking to patients is an added extra!"

4.9.3.4 Statistical Analyses

The number of staff participating in the study did not quite meet the figure suggested by the power calculation for a group comparison. There was a shortfall of between 6 and 9 staff in each of the four groups, although there were an adequate number of staff to undertake multiple regression analyses. In retrospect, it would have been beneficial to attempt to access staff at other A&E departments, due to the difficulties with recruiting subjects in a pressurised working environment, such as A&E.

4.10 Methodological Considerations for Free-Response Study

4.10.1 Sample size

Although the number of staff participating in the free-response study was relatively small, the analysis of A&E staffs' real-life encounters with DSH patients served as an exploratory study to investigate the validity of the attributional theory of helping when applied to clinical settings, as opposed to hypothetical scenarios.

4.10.2 Recruitment

It was extremely difficult to recruit staff to participate in this phase of the study. There are a number of possible reasons for this. The obvious problem was one of the busy and unpredictable nature of A&E departments. There were few medical staff who agreed to participate, and this was often because of the small numbers who were on duty at any one time. However, there may be alternative explanations for the difficulties in recruitment. One possible reason is that staff did not perceive research into DSH as a priority, and therefore were not prepared to sacrifice the time.

Due to the manner in which staff were recruited to this phase of the study, that is on a volunteer basis, there is a strong possibility that this may have biased the sample. It may not be particularly representative of the A&E staff group as a whole, or strictly comparable to the sample who completed the questionnaire. There was a predominance of female, nursing staff. This was partly due to the difficulties of recruiting male and medical staff to participate in the study. In view of the impact of staff variables such as sex and profession on staff affect, optimism and helping towards DSH this is likely to affect the results obtained in this phase of the study. Although, these differences were not reflected in the UDSHQ measure, and the median staff scores were similar (questionnaire, 22, free-response, 19.5), indicating that the latter group were slightly more empathic and understanding towards DSH patients as would be anticipated by the demographic variables.

The staff groups were similar in terms of age (questionnaire mean age, 30.9 (SD = 7.28), free-response mean age, 32.8 (SD = 9.24). The group were also comparable in terms of length of experience working in A&E (questionnaire median, 29 months, (range = 1-324) free-response median, 27 months, (range = 6-318).

4.10.3 Social Desirability Bias

One would hypothesise that the free-response study would be particularly prone to a social desirability bias in view of face to face contact with the researcher, and the fact that all the interviews were audio-taped. Some staff may have felt compelled to portray a positive attitude towards a vulnerable client group. However, the fact that most staff were able to generate an example of a patient who they felt "unsympathetic" towards argues against this. This suggests that the results may be a rather conservative portrayal of the responses of A&E staff towards DSH, and that the true picture may be more negative.

In retrospect many subjects spoke very candidly about their responses to patients who DSH. When describing a patient who generated an unsympathetic response, one participant commented, " Because I've seen these patients so many times, my first reaction is anger, and of why didn't they do it properly if they really wanted to kill themselves".

4.10.4 Ratings of Causal Attributions

4.10.4.1 Reliability of LACS guidelines

An important consideration in the measurement of spontaneous causal attributions is the process of defining the guidelines for measurement. These were very similar to the original LACS guidelines (Stratton *et. al.*, 1986), however, some changes were made. In particular, the rating of controllability led to most discussion. LACS guidelines emphasise the controllability of the outcome in making decisions as to whether the cause is rated as within or outside the person's voluntary control. As the act of DSH, that is the outcome, could be perceived to be a voluntary act, and would bias ratings in the direction of causality, emphasis was placed on focusing on the cause when making the ratings, as opposed to the outcome. Although, the inter-rater reliability on all the attributional dimensions was acceptable, this was achieved after lengthy discussion to ascertain agreed definitions. The dimension of stability of cause was the one that presented the most difficulty, with a lower level of inter-rater

reliability than the other dimensions. It was often difficult to rate this dimension, from the information staff provided. This is consistent with findings from the experimental questionnaire study, as this was the one dimension that was difficult to manipulate in the hypothetical scenarios. This is possibly due to the fact that staff often do not have access to historical information about the person presenting, which makes it difficult to make these causal judgements. Thus, stability of cause may be less influential in staff attributions of DSH, than are the other attributional dimensions. The stability of outcome dimension may be the most significant as staff are often very aware of the patients who present repeatedly with DSH, and the free-response study clearly indicates that frequent presentations were most often associated with negative staff responses.

4.10.4.2 Correlation of ASQ and LACS Attributional Ratings

There were discrepancies between ASQ forced attributional ratings that assessed the causal material staff provided when asked directly about the causes of the patients' DSH acts and LACS measure of spontaneous causal attributions. This creates some difficulty when interpreting the results. Although, there were clearly differences between the spontaneous attributions staff provided for the sympathetic and unsympathetic cases as measured by the LACS, the latter being more controllable, stable and internal, this did not correlate particularly well with the ASQ 7 point Likert scales. This is probably explained by the fact that the LACS method of assessing spontaneous causal attributions overcomes some of the problems associated with direct questioning of individual's beliefs, such as social desirability. The ASQ measure is obviously much more transparent to participants. This discrepancy found between the results obtained from the analysis of spontaneous attributions and those elicited from the modified ASQ would suggest that further examination of the two main methods is required. It may be that both are useful measurement tools, but that each provides qualitatively different information.

4.11 Clinical Implications

The evidence from this study would suggest that examination of causal attributions that A&E staff make about DSH patients is an important factor for the purposes of improving the service offered to patients who deliberately self-harm in A&E departments. There is some indication that there may be patient factors that lead staff to believe that the DSH act is due to something controllable, stable and internal to the person, which may result in less effective interventions. This may take the form of more hostile and rejecting responses towards DSH patients, which as, Sheard *et. al.* (in press) highlight, can be understood to be "a collusive replication of the patient's existing network of dysfunctional relationships, and therefore may become a maintaining factor".

Negative attitudes amongst some A&E staff are clearly problematic in terms of the care and treatment DSH patients may receive in A&E departments. In view of A&E departments often acting as a gateway to specialist follow-up services for many DSH patients, this first contact with health professionals may be crucial. Some staff are aware of their inadequate training in this area, whilst others were very dogmatic about A&E not being the appropriate place to address DSH or mental health problems in general. Although, there are some very apparent inhibitors, there is some scope for educating and training A&E nurses in aetiological and maintaining factors of DSH. Many staff regarded DSH in the very stereotypical manner. For example, in the free-response study some patients were described by staff as using DSH to "manipulate others" or "gain attention". There may also be some benefit to developing basic psychotherapeutic skills (McLaughlin, 1994). This study would emphasise that an appropriate starting point may be to begin to offer staff training in an attempt to alter their beliefs about the causes of DSH. If their cognitive appraisals of DSH acts changes, and staff feel more competent in treating DSH patients, they are likely to develop more positive responses towards this group of patients. The present study provides evidence to support an approach that acknowledges the role and impact of causal beliefs on staff and their interpretation of DSH acts.

4.12 Future Research Implications

Prospective research could aim to systematically vary features of the person (e.g. age, gender, diagnosed mental illness) and challenge (severity of DSH, functionality) to assess the impact of this on attribution, emotion and helping behaviour (Dagnan *et. al.*, 1998). DSH patients may provoke different responses in staff for reasons other than their acts of DSH. Further study may be required to identify both patient and staff factors that provoke negative reactions from staff. Previous research has tended to treat DSH patients as a homogenous group (Hemmings, 1999).

Although, some staff made reference to some of these patient factors in the speech samples, it was not possible to analyse these differences between the sympathetic and unsympathetic cases, as some staff omitted these details due to no direct questions being posed. There was some evidence of staff being unsympathetic to "repeaters", (16 of the "unsympathetic" cases had previous presentations at A&E with DSH, as opposed to only 8 of the "sympathetic" cases). There were also some indications of staff expressing more sympathy towards patients with strong suicidal intent, who had made serious attempts to end their lives. There was also evidence of staff expressing greater sympathy towards cases where there appeared to be some clear precipitant, in the form of some major life event. There is a need for further research in the area.

In addition, it would be useful to investigate further the manner in which staffs' negative judgements and affect may influence their helping responses. This is in view of Dagnan *et. al.*, (1998) comment that for paid professional and carers these may be reflected in alternative ways, as withholding help is not always an option.

4.13 Conclusions

The main findings of the study are that more controllable staff attributions for DSH are associated with negative affect, which is associated with decreased helping behaviour. Conversely, less controllable staff attributions are associated with positive affect, which is associated with increased helping behaviour. Higher ratings of stability were associated with less staff optimism, and reduced optimism was associated with decreased helping behaviour. There is some evidence to suggest that attributions of controllability may be influenced by the precipitant, and that stability judgements are influenced by the frequency of presentation at A&E with DSH. There was also evidence to support that staff irritation was the most significant factor associated with helping behaviour. There is evidence of staff factors, such as sex and profession having significant effects on affect, optimism and helping towards DSH cases presented in hypothetical scenarios.

The analyses of the free-response study suggested that staff rated the cases they were unsympathetic towards as more controllable, more stable and more internal. This is consistent with the predictions of Weiner's attributional model of helping. The analyses of staff's real life encounters with DSH patients provided some confirmation of the relationships between causal attributions, affect, optimism and helping obtained in the experimental questionnaire. However, the free response study elicited more significant correlations between causal attributions of stability and optimism, than were evident in the analysis of the questionnaire study responses.

The study provides evidence in support of a model that suggests staffs' causal attributions impact on affect, optimism and helping. This has clinical implications for the treatment offered to DSH patients in A&E departments, suggesting that an examination of staffs' beliefs about DSH patients may be an important initial step in any training intervention offered to A&E staff.

In summary, the present study has demonstrated some important findings in relation to the cognitive and emotional factors that motivate staffs' helping behaviour towards DSH patients in A&E departments. This is a different way to approaching the research to date, which has predominately examined staff attitudes towards DSH in terms of demographic factors. The present study applies a theoretical model to examining the cognitive appraisals of staff responses to DSH, and has some very interesting clinical and research implications.

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APPENDICES

APPENDIX 1

STAFF INFORMATION SHEET 1

An Exploratory Study to Investigate Medical and Nursing Staff Responses to Deliberate Self- Harm

I am a Trainee Clinical Psychologist based in the Department of Clinical Psychology at Withington Hospital, South Manchester. I am conducting some research to learn more about the responses of A&E staff to individuals who present with deliberate self- harm. Specifically, the study examines staffs' perceptions of causes, their understanding and helping behaviour.

Your assistance with this research project would be greatly appreciated. Participation is, of course, entirely voluntary, and will involve completing a short questionnaire, which should be returned in the enclosed envelope. I anticipate that completion of the questionnaire should take approximately 20 minutes of your time. All the information provided will remain strictly confidential.

Hopefully, the results of the research will help to provide a better understanding of the reactions that people who deliberately self- harm elicit from healthcare professionals, and may have implications for staff training in their treatment and management. This may help to improve the services offered to people who engage in DSH.

If you are agreeable to taking part in the study, please could you sign the consent form attached. If you wish to ask any questions about the research you may contact:

Nadine Mackay
Trainee Clinical Psychologist
University Department of Clinical Psychology
Research and Teaching Block
Withington Hospital
Nell Lane
West Didsbury
Manchester
M20 8LR
Tel: 0161 291 4319

APPENDIX 2

DEMOGRAPHIC INFORMATION FORM

Please complete the following information, which is completely **CONFIDENTIAL.**

HOSPITAL BASE:

AGE:

SEX:

PROFESSION:

LENGTH OF EXPERIENCE IN A&E: (Please specify number of months in total, not just current department)

APPENDIX 3

Accident and Emergency Staffs' Responses towards DSH

Instructions

Previous research suggests that patients presenting with DSH generate a range of different responses from staff. Please consider the following scenario that provides a short description of a hypothetical patient, and try to vividly imagine the person presenting to the Accident & Emergency Department in which you currently work. Having considered the scenario, complete the questions that follow. Please ensure that you answer **all** the questions, and only circle **one** response per question.

Scenario

It is 11 o' clock on a Saturday night and you are on shift in the A&E Department, which is extremely busy. Jane is a 27 year-old white, single, unemployed woman, who currently lives alone. She arrives at A&E, accompanied by a female friend who reports that Jane has taken an overdose of paracetamol. Jane is fairly uncommunicative, quietly spoken and tearful. She tells you that she probably swallowed about 18 tablets. [She reports that 6 months ago a close friend died]. [She reports that she has got herself into huge financial debts]. [This is the first occasion that Jane has presented to A&E having harmed herself]. [This is the sixth occasion that Jane has presented to A&E having harmed herself].

APPENDIX 4

ATTRIBUTIONS RATING SCALE

- Given this information, what do you perceive to be the cause of the overdose?

- To what extent do you think that factor(s) precipitating the overdose are within Jane's control?

1 2 3 4 5 6 7

Not at all within her control	Totally within her control

- If Jane were to present in the future having taken an overdose, how likely is it that the factor(s) precipitating this overdose will again be present?

1 2 3 4 5 6 7

Will never be present	Will always be present

- How likely do you think Jane is to repeat her self- harming behaviour in similar situations in the future?

1 2 3 4 5 6 7

Not at all likely	Extremely likely

- Is the cause of Jane's self- harming behaviour due to something about her, or something about other people/ circumstances?

1 2 3 4 5 6 7

Totally due to Jane	Totally due to circumstances

APPENDIX 5

EMOTIONAL RESPONSE RATING SCALE

- To what extent would you feel the following responses towards Jane's behaviour?

	Not at all						Extreme
Irritation	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Sympathy	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Pity	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Frustration	**1**	**2**	**3**	**4**	**5**	**6**	**7**

APPENDIX 6

OPTIMISM RATING SCALE

- To what extent do you think that your personal input in A&E would have a positive impact in reducing Jane's self- harming behaviour in the future?

1 2 3 4 5 6 7

No impact at all Great impact

- To what extent do you think that any follow-up treatment offered to Jane would be successful in changing her behaviour?

1 2 3 4 5 6 7

Not at all successful Extremely successful

APPENDIX 7

HELPING BEHAVIOUR RATING SCALE

- Given the busy nature of your work, is Jane someone who you would perceive as a low or high priority, in terms of staff time and NHS resources?

1 2 3 4 5 6 7

Low priority High priority

- Is Jane someone you would be willing to offer extra time and support to in the A&E department?

1 2 3 4 5 6 7

None at all As much as possible

- Is Jane someone you would consider referring to another appropriate service?

1 2 3 4 5 6 7

Not at all Most likely

APPENDIX 8

DSH STAFF TRAINING SCALE

1. I think my present training has provided me with adequate skill to take care of people who have deliberately self-harmed.

1	2	3	4
I agree completely			**I disagree completely**

2. I am in need of further training to be able to work with patients who have deliberate self-harmed.

1	2	3	4
I agree completely			**I disagree completely**

APPENDIX 9

UNDERSTANDING OF DELIBERATE SELF-HARM QUESTIONNAIRE (UDSHQ)

1. Patients who have deliberately self-harmed are usually treated well within my department.

1	2	3	4
I agree completely			**I disagree completely**

2. I sometimes get very angry with patients who have deliberately self-harmed.

1	2	3	4
I agree completely			**I disagree completely**

3. A person who has made several deliberate self-harm attempts is at great risk of committing suicide.

1	2	3	4
I agree completely			**I disagree completely**

4. I treat patients who have deliberately harmed themselves as willingly and sympathetically as I treat other patients.

1	2	3	4
I agree completely			**I disagree completely**

5. Because the patients who have deliberately self-harmed have problems, they need the best possible treatment.

1	2	3	4
I agree completely			**I disagree completely**

6. I often find it difficult to understand a person who has deliberately self-harmed.

1	2	3	4
I agree completely			**I disagree completely**

7. I like to help a person who has deliberately self-harmed.

1	2	3	4
I agree completely			**I disagree completely**

8. I try to do my best to talk to a patient who has deliberately self-harmed about his or her personal problems.

1	2	3	4
I agree completely			**I disagree completely**

9. It is usually troublesome to nurse a patient who has deliberately self-harmed.

1	2	3	4
I agree completely			**I disagree completely**

10. I am usually sympathetic and understanding towards a patient who has deliberately self- harmed.

1	2	3	4
I agree completely			**I disagree completely**

11. I try to do my best to make a patient who has deliberately self-harmed feel comfortable and secure.

1	2	3	4
I agree completely			**I disagree completely**

APPENDIX 10

STAFF INFORMATION SHEET 2

An Exploratory Study to Investigate Medical and Nursing Staff Responses to Deliberate Self-Harm

I am a Trainee Clinical Psychologist based in the Department of Clinical Psychology at Withington Hospital, South Manchester. I am conducting some research to learn more about the responses of A&E staff to individuals who present with deliberate self- harm. Specifically, the study examines staffs' perceptions of causes, their understanding and helping behaviour.

Participation is, of course, entirely voluntary. The research would involve you relating your experiences of working with people who have presented with deliberate self- harm, and answering a range of questions on your views about their treatment. This would take place in a brief interview.

It would be useful if you provided permission for the interview to be audio-taped, as this would assist with data collection. You may, however, request that the interview is not taped. All the information provided will remain strictly confidential. Tape-recorded interviews will be destroyed upon completion of the study.

Hopefully, the results of the research will help to provide a better understanding of the reactions that people who deliberately self-harm elicit from healthcare professionals, and may have implications for staff training in their treatment and management. This may help to improve the services offered to people who engage in DSH.

If you are agreeable to taking part in the study, please could you sign the consent form attached. If you wish to ask any questions about the research you may contact:

Nadine Mackay
Trainee Clinical Psychologist
University Department of Clinical Psychology
Research and Teaching Block
Withington Hospital
Nell Lane
West Didsbury
Manchester
M20 8LR
Tel: 0161 291 4319

APPENDIX 11

CONSENT FORM

I .....(Name)

of .....(Hospital)

hereby consent to partaking in an interview concerning my responses to deliberate self-harm patients. I understand that the interview information will be completely confidential.

Signed ..... Date .....

For the purposes of data analysis it would be useful to tape the interview. All tapes will remain confidential and will be destroyed upon the completion of the study.

I agree for the interview to be audio- taped.

Signed ..... Date .....

I confirm that I have fully explained the purpose and nature of the investigation.

Signed ..... Date .....

APPENDIX 12

Instructions for Eliciting A&E Staffs' Descriptions of DSH Cases

I would like to hear your thoughts and feelings about DSH patients, in your own words and without my interrupting with any questions or comments. When I ask you to begin I would like you to speak for four minutes in total. First of all, I would like you to describe a patient who presented to A&E with DSH whom you felt sympathetic towards, and secondly, to describe a patient who presented to A&E with DSH whom you felt unsympathetic towards. After you begin to speak, I prefer not to answer any questions until after the two minutes are over. Do you have any questions before we begin?

Once the respondent has begun to speak, may only make one comment:

Please tell me anything about the person for a few more seconds.

I would like you to speak for two minutes, describing a patient who presented with DSH whom you felt sympathetic towards.

.

I would like you to speak for two minutes, describing a patient who presented with DSH whom you felt unsympathetic towards.

APPENDIX 13

Questionnaire for Free-Response DSH cases

- What did you perceive to be the reason for, or the cause, of the person's self-harm?

- Can you recall whether this was the person's first presentation at A&E with DSH or whether he/ she had presented in the past?

Initial/ Repeated (please circle)

ATTRIBUTIONS RATING SCALE

- To what extent do you think that factor(s) precipitating the deliberate self-harm were within the person's control?

1 2 3 4 5 6 7

Not at all within the person's control	Totally within the person's control

- If the person were to attend A&E in the future with deliberate self-harm, how likely is it that factor(s) leading up to the last occasion, will again be present?

1 2 3 4 5 6 7

Will never again be present	Will always be present

- How likely do you think the person is to repeat his/ her self-harming behaviour in similar situations in the future?

1 2 3 4 5 6 7

Not at all likely	Extremely likely

- Is the cause of the person's self-harming behaviour due to something about him / her, or something about other people/ circumstances?

1 2 3 4 5 6 7

Totally due to person — Totally due to circumstances

EMOTIONAL RESPONSE RATING SCALE

- To what extent did you feel the following responses towards the person's behaviour?

	Not at all						Extreme
Irritation	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Sympathy	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Pity	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Frustration	**1**	**2**	**3**	**4**	**5**	**6**	**7**

OPTIMISM RATING SCALE

- To what extent do you think that you personal input in A&E would have a positive impact in reducing the person's self- harming behaviour in the future?

1 2 3 4 5 6 7

No impact at all Great impact

- To what extent do you think that any follow-up treatment offered to the person would be successful in changing his/ her behaviour?

1 2 3 4 5 6 7

Not at all successful Extremely successful

HELPING BEHAVIOUR SCALE

- Given the busy nature of your work, is the person someone who you would perceive as a low or high priority, in terms of staff time and NHS resources?

1 2 3 4 5 6 7

Low priority High priority

- Is the person someone you would be willing to offer extra time and support to in the A&E department?

1 2 3 4 5 6 7

None at all As much as possible

- Is the person someone you would consider referring to another appropriate service?

1 2 3 4 5 6 7

Not at all Most likely

APPENDIX 14

GUIDELINES FOR CODING A&E STAFFS' CAUSAL ATTRIBUTIONS FOR DSH

Modified from LACS (Stratton *et. al.* 1986), and Unpublished Notes on the Use of the LACS for Studies of Schizophrenia (Brewin, 1988).

Guidelines

1. Each individual cause identified by the staff member should be rated separately on the attributional dimensions. Causal explanations should be rated on each of the following dimensions:

- Controllable vs uncontrollable (cause not outcome)
- Stable vs unstable (cause)
- Stable vs unstable (outcome)
- Internal vs external (cause)

2. Having coded on each dimension and obtained scores of either 0, 1 or 9, attributional ratings should be expressed as a Proportional Attribution (PA) score. For example, if there were two causes identified by the staff member that were rated as follows;

Cause 1: Controllability = 0, Stability = 1, Internality = 9

Cause 2: Controllability =1, Stability = 1, Internality =0

The final ratings would be;

controllability = .5

stability = 1

internality = 0 (i.e. the unrateable score is excluded from the analysis completely).

DIMENSION 1 CONTROLLABILITY

UNCONTROLLABLE (0) VS CONTROLLABLE (1)

Question: Does the staff member believe that the patient has some control over the cause and/ or could have managed to change the cause with a reasonable amount of effort? Alternatively does the speaker believe that the cause is/ was outside the control of the patient or was inevitable give the circumstances?

(NOTE: LACS emphasises taking the outcome into account, that is control over outcome, but because the outcome is constant and essentially a voluntary act (self-harm) this would bias the ratings in the direction of controllability. For this reason the rater should focus on the cause when making a judgement on this dimension.

RATE 0= UNCONTROLLABLE

1= CONTROLLABLE

9= UNRATEABLE

Causes usually rated as controllable: voluntary statements and actions; habits and behavioural patterns; characteristics, such as laziness.

Causes usually rated as uncontrollable: environmental stress; illness and disability; mood changes; emotional reactions, such as anxiety or depression; actions and characteristics of others; luck, chance or fate; situational demands; unconscious attitudes; forgetting.

Cause usually unrateable: actions or characteristics where degree of voluntary control is uncertain.

DIMENSION 2 STABILITY OF CAUSE

UNSTABLE (0) VS STABLE (1)

Question: Does the staff member believe that this cause is transient, including current but likely to pass soon, or completed in the past? Or does the staff member believe that the cause is chronic, continuous and/ or likely to continue? (NOTE: The rating is not of the strength of the link between the cause and the event, but strictly the stability of the cause. For example, "She always ends up self-harming following an argument with her partner". This is code as unstable, despite the stress on consistency. The cause, that is, the argument is unstable.

RATE 0 = UNSTABLE

1 = STABLE

9 = UNRATEABLE

Causes usually rated as stable: personality dispositions and traits; abilities; habits and stable behaviour patterns; chronic illnesses and disability; genetic influences; long-term social problems; major life events with permanent effects extending into the present and future (e.g. divorce).

Causes usually rated as unstable: completed past events; isolated incidents; luck, chance and fate; transient illnesses; mood states and feelings; reactions to particular situations.

Causes usually unrateable: causes where the probability of being continuously present in the future is unclear; causes or outcomes that cannot recur; e.g. a particular individual's death; or those which remain constant e.g. development of a chronic illness.

DIMENSION 3 STABILITY OF OUTCOME

UNSTABLE (0) VS STABLE (1)

Question: This dimension measures the probability of future occurrence. Does the staff member believe that the event, that is, the act of self-harm is likely to recur?

RATE 0 = UNSTABLE (initial episode)

1 = STABLE (previous episodes)

DIMENSION 4 INTERNALITY/ EXTERNALITY

INTERNAL (0) VS EXTERNAL (1)

Question: Does the staff member believe that the event is caused by a feature of the patient (a psychological, behavioural or physical characteristic) or by the influence of an external condition or event (by other people or situations)?

RATE 0 = INTERNAL

1 = EXTERNAL

9 = UNRATEABLE

Causes usually rated as internal; personality traits and dispositions; physical characteristics; knowledge, skills and ability (or deficits); decisions taken by the patient; desires, feelings and emotions; opinions and beliefs; actions and behaviours of the patient; motives; illness.

Causes usually rated as external: actions of others; personality traits or dispositions of others; characteristics of a situation; environmental factors; luck, fate or chance.

Causes usually rated as unrateable: events in which patients role is unclear, e.g. "relationship breakdown" not attributed to either party and where there is the possibility of equal responsibility.

APPENDIX 15

Mean scores on dependent measures for 4 groups completing vignettes (standard deviations in parenthesis)

Vignette 1: death, 1st

Vignette 2: financial, 1st

Vignette 3: death, 6th

Vignette 4: financial, 6th

Variable	Vignette 1	Vignette 2	Vignette 3	Vignette 4
Controllability	3.81 (1.66)	3.92 (1.14)	3.55 (1.41)	4.32 (1.39)
Stability of cause	5.24 (1.26)	5.04 (1.00)	5.27 (0.98)	5.59 (0.67)
Stability of outcome	4.90 (1.59)	4.25 (1.39)	5.45 (1.14)	6.00 (0.82)
Internality	3.16 (1.12)	3.83 (1.27)	3.45 (0.91)	3.73 (1.24)
Irritation	2.43 (1.69)	2.38 (1.24)	2.55 (1.50)	2.27 (1.42)
Sympathy	4.71 (1.15)	4.58 (1.41)	5.27 (0.98)	4.36 (1.65)
Pity	3.19 (1.69)	3.92 (1.25)	3.82 (1.71)	3.73 (1.67)
Frustration	2.90 (2.00)	3.38 (1.35)	3.36 (1.73)	3.36 (1.76)
Optimism (pers)	3.57 (1.72)	3.96 (1.73)	3.95 (1.43)	3.14 (1.61)
Optimism (fu)	5.10 (1.55)	5.04 (1.30)	5.27 (0.88)	4.77 (1.38)
Help	15.29 (3.48)	15.00 (3.04)	16.45 (2.99)	15.24 (3.63)

APPENDIX 16: Correlations between key variables (n = 89)

	1	2	3	4	5	6	7	8	9	10	11
Controllability	1	.13	.00	-.16	**.37**	**-.40**	-.07	**.33**	-.20	-.18	**-.37**
Stability of Cause	2		**.33**	.19	-.03	.05	.00	.08	-.05	-.09	-.16
Stability Outcome	3			-.09	.05	-.02	.10	.20	**-.33**	-.06	.06
Internality	4				-.13	*.26*	.10	-.17	.17	.10	.08
Irritation	5					**-.32**	-.01	**.68**	-.06	-.09	**-.55**
Sympathy	6						.18	*-.26*	*.25*	.11	**.49**
Pity	7							.06	-.09	.07	.11
Frustration	8								-.08	-.05	**-.40**
Personal Optimism	9									**.47**	**.38**
Optimism for Follow-up **	10										**.36**
Helping	11										

Note. $p < .05$ indicated by italic values; $p < .01$ indicated by bold values
**Spearman's correlations were used for the analysis of optimism for follow-up.